

AP-111

AGWMR
(5 of 5)

2015



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 07, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 2nd QTR (MKTF)

OrderNo.: 1506567

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 6/11/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 7:00:00 AM

Lab ID: 1506567-001

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Toluene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Naphthalene	ND	2.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Acetone	ND	10		µg/L	1	6/19/2015 12:24:53 AM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Bromoform	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Bromomethane	ND	3.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
2-Butanone	ND	10		µg/L	1	6/19/2015 12:24:53 AM	R26940
Carbon disulfide	ND	10		µg/L	1	6/19/2015 12:24:53 AM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Chloroethane	ND	2.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Chloroform	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Chloromethane	ND	3.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 12:24:53 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 91
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 7:00:00 AM

Lab ID: 1506567-001

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
2-Hexanone	ND	10		µg/L	1	6/19/2015 12:24:53 AM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 12:24:53 AM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Styrene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 12:24:53 AM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 12:24:53 AM	R26940
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	6/19/2015 12:24:53 AM	R26940
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/19/2015 12:24:53 AM	R26940
Surr: Dibromofluoromethane	95.2	70-130		%REC	1	6/19/2015 12:24:53 AM	R26940
Surr: Toluene-d8	101	70-130		%REC	1	6/19/2015 12:24:53 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 8:30:00 AM

Lab ID: 1506567-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 1:44:38 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 1:44:38 PM	R27034
Selenium	0.0065	0.0050		mg/L	5	6/23/2015 1:44:38 PM	R27034
Uranium	0.033	0.0050	*	mg/L	5	6/23/2015 1:44:38 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.050	0.0020		mg/L	1	6/22/2015 5:29:23 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:29:23 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:29:23 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:24:52 AM	R27081
Iron	0.58	0.020	*	mg/L	1	6/22/2015 5:29:23 PM	R27010
Manganese	0.089	0.0020	*	mg/L	1	6/22/2015 5:29:23 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 5:29:23 PM	R27010
Zinc	ND	0.010		mg/L	1	6/22/2015 5:29:23 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.28	0.0020		mg/L	1	6/22/2015 3:13:03 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:13:03 PM	19841
Chromium	0.0067	0.0060		mg/L	1	6/22/2015 3:13:03 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:13:03 PM	19841
Iron	7.7	0.20	*	mg/L	10	6/22/2015 3:57:38 PM	19841
Manganese	0.57	0.0020	*	mg/L	1	6/22/2015 3:13:03 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:13:03 PM	19841
Zinc	0.024	0.010		mg/L	1	6/22/2015 3:13:03 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 1:45:26 PM	19841
Lead	0.0089	0.0025		mg/L	5	6/24/2015 1:45:26 PM	19841
Selenium	ND	0.010		mg/L	10	6/24/2015 3:40:52 PM	19841
Uranium	0.034	0.0025	*	mg/L	5	6/24/2015 1:45:26 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:40:53 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 2:20:14 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 2:20:14 PM	19687
Surr: DNOP	112	76.5-150		%REC	1	6/15/2015 2:20:14 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.071	0.050		mg/L	1	6/15/2015 11:18:27 AM	R26838
Surr: BFB	88.1	57.8-137		%REC	1	6/15/2015 11:18:27 AM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 91
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 8:30:00 AM

Lab ID: 1506567-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 12:44:43 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 12:44:43 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 12:44:43 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 12:44:43 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 91
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 8:30:00 AM

Lab ID: 1506567-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 12:44:43 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 12:44:43 PM	19714
Surr: 2-Fluorophenol	80.9	14.9-111		%REC	1	6/16/2015 12:44:43 PM	19714
Surr: Phenol-d5	81.2	11.3-108		%REC	1	6/16/2015 12:44:43 PM	19714
Surr: 2,4,6-Tribromophenol	123	15.7-154		%REC	1	6/16/2015 12:44:43 PM	19714
Surr: Nitrobenzene-d5	112	47.8-106	S	%REC	1	6/16/2015 12:44:43 PM	19714
Surr: 2-Fluorobiphenyl	110	21.3-123		%REC	1	6/16/2015 12:44:43 PM	19714
Surr: 4-Terphenyl-d14	172	14.3-135	S	%REC	1	6/16/2015 12:44:43 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 8:30:00 AM

Lab ID: 1506567-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Toluene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Methyl tert-butyl ether (MTBE)	2.7	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2-Dichloroethane (EDC)	5.0	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Naphthalene	ND	2.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Acetone	ND	10		µg/L	1	6/19/2015 1:20:32 AM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Bromoform	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Bromomethane	ND	3.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
2-Butanone	ND	10		µg/L	1	6/19/2015 1:20:32 AM	R26940
Carbon disulfide	ND	10		µg/L	1	6/19/2015 1:20:32 AM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Chloroethane	ND	2.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Chloroform	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Chloromethane	ND	3.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
cis-1,2-DCE	6.7	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,1-Dichloroethane	110	10		µg/L	10	6/19/2015 12:52:39 AM	R26940
1,1-Dichloroethene	6.7	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 1:20:32 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 91
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 8:30:00 AM

Lab ID: 1506567-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
2-Hexanone	ND	10		µg/L	1	6/19/2015 1:20:32 AM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 1:20:32 AM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Styrene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,1,1-Trichloroethane	2.9	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Trichloroethene (TCE)	6.2	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 1:20:32 AM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 1:20:32 AM	R26940
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	1	6/19/2015 1:20:32 AM	R26940
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/19/2015 1:20:32 AM	R26940
Surr: Dibromofluoromethane	93.4	70-130		%REC	1	6/19/2015 1:20:32 AM	R26940
Surr: Toluene-d8	100	70-130		%REC	1	6/19/2015 1:20:32 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:02:00 AM

Lab ID: 1506567-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 1:53:48 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 1:53:48 PM	R27034
Selenium	ND	0.0050		mg/L	5	6/23/2015 1:53:48 PM	R27034
Uranium	0.019	0.0050		mg/L	5	6/23/2015 1:53:48 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.035	0.0020		mg/L	1	6/22/2015 5:31:23 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:31:23 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:31:23 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:27:07 AM	R27081
Iron	0.049	0.020		mg/L	1	6/22/2015 5:31:23 PM	R27010
Manganese	0.36	0.0020	*	mg/L	1	6/22/2015 5:31:23 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 5:31:23 PM	R27010
Zinc	0.025	0.010		mg/L	1	6/22/2015 5:31:23 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	6/22/2015 3:14:57 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:14:57 PM	19841
Chromium	ND	0.0060		mg/L	1	6/22/2015 3:14:57 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:14:57 PM	19841
Iron	2.4	0.10	*	mg/L	5	6/22/2015 3:59:44 PM	19841
Manganese	0.41	0.0020	*	mg/L	1	6/22/2015 3:14:57 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:14:57 PM	19841
Zinc	0.011	0.010		mg/L	1	6/22/2015 3:14:57 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 1:48:09 PM	19841
Lead	ND	0.0025		mg/L	5	6/24/2015 1:48:09 PM	19841
Selenium	ND	0.0050		mg/L	5	6/24/2015 1:48:09 PM	19841
Uranium	0.020	0.0025		mg/L	5	6/24/2015 1:48:09 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:42:57 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 2:41:35 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 2:41:35 PM	19687
Surr: DNOP	111	76.5-150		%REC	1	6/15/2015 2:41:35 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/15/2015 12:33:50 PM	R26838
Surr: BFB	88.9	57.8-137		%REC	1	6/15/2015 12:33:50 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:02:00 AM

Lab ID: 1506567-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 1:12:41 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 1:12:41 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 1:12:41 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 1:12:41 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 9 of 91
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:02:00 AM

Lab ID: 1506567-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 1:12:41 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 1:12:41 PM	19714
Surr: 2-Fluorophenol	80.7	14.9-111		%REC	1	6/16/2015 1:12:41 PM	19714
Surr: Phenol-d5	77.0	11.3-108		%REC	1	6/16/2015 1:12:41 PM	19714
Surr: 2,4,6-Tribromophenol	122	15.7-154		%REC	1	6/16/2015 1:12:41 PM	19714
Surr: Nitrobenzene-d5	107	47.8-106	S	%REC	1	6/16/2015 1:12:41 PM	19714
Surr: 2-Fluorobiphenyl	103	21.3-123		%REC	1	6/16/2015 1:12:41 PM	19714
Surr: 4-Terphenyl-d14	114	14.3-135		%REC	1	6/16/2015 1:12:41 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:02:00 AM

Lab ID: 1506567-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Toluene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Methyl tert-butyl ether (MTBE)	14	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Naphthalene	ND	2.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Acetone	ND	10		µg/L	1	6/19/2015 2:16:03 AM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Bromoform	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Bromomethane	ND	3.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
2-Butanone	ND	10		µg/L	1	6/19/2015 2:16:03 AM	R26940
Carbon disulfide	ND	10		µg/L	1	6/19/2015 2:16:03 AM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Chloroethane	ND	2.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Chloroform	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Chloromethane	ND	3.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 2:16:03 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:02:00 AM

Lab ID: 1506567-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
2-Hexanone	ND	10		µg/L	1	6/19/2015 2:16:03 AM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 2:16:03 AM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Styrene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 2:16:03 AM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 2:16:03 AM	R26940
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%REC	1	6/19/2015 2:16:03 AM	R26940
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	1	6/19/2015 2:16:03 AM	R26940
Surr: Dibromofluoromethane	97.1	70-130		%REC	1	6/19/2015 2:16:03 AM	R26940
Surr: Toluene-d8	97.6	70-130		%REC	1	6/19/2015 2:16:03 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:26:00 AM

Lab ID: 1506567-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 1:56:52 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 1:56:52 PM	R27034
Selenium	ND	0.0050		mg/L	5	6/23/2015 1:56:52 PM	R27034
Uranium	0.063	0.0050	*	mg/L	5	6/23/2015 1:56:52 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.14	0.0020		mg/L	1	6/22/2015 5:33:25 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:33:25 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:33:25 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:29:10 AM	R27081
Iron	0.86	0.020	*	mg/L	1	6/22/2015 5:33:25 PM	R27010
Manganese	1.2	0.010	*	mg/L	5	6/25/2015 10:31:15 AM	R27081
Silver	ND	0.0050		mg/L	1	6/22/2015 5:33:25 PM	R27010
Zinc	0.036	0.010		mg/L	1	6/22/2015 5:33:25 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.18	0.0020		mg/L	1	6/22/2015 3:16:46 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:16:46 PM	19841
Chromium	ND	0.0060		mg/L	1	6/22/2015 3:16:46 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:16:46 PM	19841
Iron	2.7	0.10	*	mg/L	5	6/22/2015 4:02:02 PM	19841
Manganese	1.3	0.010	*	mg/L	5	6/22/2015 4:02:02 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:16:46 PM	19841
Zinc	0.015	0.010		mg/L	1	6/22/2015 3:16:46 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 1:50:53 PM	19841
Lead	0.0030	0.0025		mg/L	5	6/24/2015 1:50:53 PM	19841
Selenium	ND	0.0050		mg/L	5	6/24/2015 1:50:53 PM	19841
Uranium	0.054	0.0025	*	mg/L	5	6/24/2015 1:50:53 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:45:01 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 3:02:55 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 3:02:55 PM	19687
Surr: DNOP	112	76.5-150		%REC	1	6/15/2015 3:02:55 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2.5	0.25		mg/L	5	6/15/2015 12:59:00 PM	R26838
Surr: BFB	95.8	57.8-137		%REC	5	6/15/2015 12:59:00 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:26:00 AM

Lab ID: 1506567-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 1:40:46 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 1:40:46 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 1:40:46 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 1:40:46 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:26:00 AM

Lab ID: 1506567-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 1:40:46 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Phenol	14	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 1:40:46 PM	19714
Surr: 2-Fluorophenol	42.5	14.9-111		%REC	1	6/16/2015 1:40:46 PM	19714
Surr: Phenol-d5	52.5	11.3-108		%REC	1	6/16/2015 1:40:46 PM	19714
Surr: 2,4,6-Tribromophenol	102	15.7-154		%REC	1	6/16/2015 1:40:46 PM	19714
Surr: Nitrobenzene-d5	77.7	47.8-106		%REC	1	6/16/2015 1:40:46 PM	19714
Surr: 2-Fluorobiphenyl	90.6	21.3-123		%REC	1	6/16/2015 1:40:46 PM	19714
Surr: 4-Terphenyl-d14	107	14.3-135		%REC	1	6/16/2015 1:40:46 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:26:00 AM

Lab ID: 1506567-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	800	50		µg/L	50	6/19/2015 3:39:03 AM	R26940
Toluene	8.7	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Ethylbenzene	6.9	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Methyl tert-butyl ether (MTBE)	79	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2-Dichloroethane (EDC)	6.4	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Naphthalene	ND	10		µg/L	5	6/19/2015 4:06:42 AM	R26940
1-Methylnaphthalene	ND	20		µg/L	5	6/19/2015 4:06:42 AM	R26940
2-Methylnaphthalene	ND	20		µg/L	5	6/19/2015 4:06:42 AM	R26940
Acetone	ND	50		µg/L	5	6/19/2015 4:06:42 AM	R26940
Bromobenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Bromodichloromethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Bromoform	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Bromomethane	ND	15		µg/L	5	6/19/2015 4:06:42 AM	R26940
2-Butanone	ND	50		µg/L	5	6/19/2015 4:06:42 AM	R26940
Carbon disulfide	ND	50		µg/L	5	6/19/2015 4:06:42 AM	R26940
Carbon Tetrachloride	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Chlorobenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Chloroethane	ND	10		µg/L	5	6/19/2015 4:06:42 AM	R26940
Chloroform	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Chloromethane	ND	15		µg/L	5	6/19/2015 4:06:42 AM	R26940
2-Chlorotoluene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
4-Chlorotoluene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
cis-1,2-DCE	6.9	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/19/2015 4:06:42 AM	R26940
Dibromochloromethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Dibromomethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,1-Dichloroethane	64	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,1-Dichloroethene	36	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2-Dichloropropane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,3-Dichloropropane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
2,2-Dichloropropane	ND	10		µg/L	5	6/19/2015 4:06:42 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:26:00 AM

Lab ID: 1506567-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Hexachlorobutadiene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
2-Hexanone	ND	50		µg/L	5	6/19/2015 4:06:42 AM	R26940
Isopropylbenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
4-Isopropyltoluene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
4-Methyl-2-pentanone	ND	50		µg/L	5	6/19/2015 4:06:42 AM	R26940
Methylene Chloride	ND	15		µg/L	5	6/19/2015 4:06:42 AM	R26940
n-Butylbenzene	ND	15		µg/L	5	6/19/2015 4:06:42 AM	R26940
n-Propylbenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
sec-Butylbenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Styrene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
tert-Butylbenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/19/2015 4:06:42 AM	R26940
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
trans-1,2-DCE	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,1,1-Trichloroethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Trichlorofluoromethane	ND	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
1,2,3-Trichloropropane	ND	10		µg/L	5	6/19/2015 4:06:42 AM	R26940
Vinyl chloride	6.8	5.0		µg/L	5	6/19/2015 4:06:42 AM	R26940
Xylenes, Total	ND	7.5		µg/L	5	6/19/2015 4:06:42 AM	R26940
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%REC	5	6/19/2015 4:06:42 AM	R26940
Surr: 4-Bromofluorobenzene	101	70-130		%REC	5	6/19/2015 4:06:42 AM	R26940
Surr: Dibromofluoromethane	88.7	70-130		%REC	5	6/19/2015 4:06:42 AM	R26940
Surr: Toluene-d8	97.1	70-130		%REC	5	6/19/2015 4:06:42 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:58:00 AM

Lab ID: 1506567-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 1:59:55 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 1:59:55 PM	R27034
Selenium	0.0058	0.0050		mg/L	5	6/23/2015 1:59:55 PM	R27034
Uranium	0.037	0.0050	*	mg/L	5	6/23/2015 1:59:55 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.29	0.0020		mg/L	1	6/22/2015 5:35:42 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:35:42 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:35:42 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:33:14 AM	R27081
Iron	0.69	0.020	*	mg/L	1	6/22/2015 5:35:42 PM	R27010
Manganese	1.4	0.010	*	mg/L	5	6/25/2015 10:35:22 AM	R27081
Silver	ND	0.0050		mg/L	1	6/22/2015 5:35:42 PM	R27010
Zinc	0.021	0.010		mg/L	1	6/22/2015 5:35:42 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.58	0.0020		mg/L	1	6/22/2015 3:18:32 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:18:32 PM	19841
Chromium	0.010	0.0060		mg/L	1	6/22/2015 3:18:32 PM	19841
Copper	0.010	0.0060		mg/L	1	6/22/2015 3:18:32 PM	19841
Iron	8.8	0.20	*	mg/L	10	6/22/2015 4:04:17 PM	19841
Manganese	2.1	0.020	*	mg/L	10	6/22/2015 4:04:17 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:18:32 PM	19841
Zinc	0.030	0.010		mg/L	1	6/22/2015 3:18:32 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 1:53:36 PM	19841
Lead	0.013	0.0025		mg/L	5	6/24/2015 1:53:36 PM	19841
Selenium	ND	0.0050		mg/L	5	6/24/2015 1:53:36 PM	19841
Uranium	0.038	0.0025	*	mg/L	5	6/24/2015 1:53:36 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:47:08 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 3:24:22 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 3:24:22 PM	19687
Surr: DNOP	109	76.5-150		%REC	1	6/15/2015 3:24:22 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	9.8	0.50		mg/L	10	6/15/2015 1:24:09 PM	R26838
Surr: BFB	98.7	57.8-137		%REC	10	6/15/2015 1:24:09 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:58:00 AM

Lab ID: 1506567-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 2:08:49 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 2:08:49 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 2:08:49 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 2:08:49 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:58:00 AM

Lab ID: 1506567-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 2:08:49 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 2:08:49 PM	19714
Surr: 2-Fluorophenol	74.6	14.9-111		%REC	1	6/16/2015 2:08:49 PM	19714
Surr: Phenol-d5	72.3	11.3-108		%REC	1	6/16/2015 2:08:49 PM	19714
Surr: 2,4,6-Tribromophenol	142	15.7-154		%REC	1	6/16/2015 2:08:49 PM	19714
Surr: Nitrobenzene-d5	98.6	47.8-106		%REC	1	6/16/2015 2:08:49 PM	19714
Surr: 2-Fluorobiphenyl	105	21.3-123		%REC	1	6/16/2015 2:08:49 PM	19714
Surr: 4-Terphenyl-d14	115	14.3-135		%REC	1	6/16/2015 2:08:49 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:58:00 AM

Lab ID: 1506567-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	2900	50		µg/L	50	6/19/2015 5:01:55 AM	R26940
Toluene	15	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Ethylbenzene	46	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Methyl tert-butyl ether (MTBE)	170	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2-Dichloroethane (EDC)	8.3	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Naphthalene	ND	10		µg/L	5	6/19/2015 10:46:00 AM	R26968
1-Methylnaphthalene	ND	20		µg/L	5	6/19/2015 10:46:00 AM	R26968
2-Methylnaphthalene	ND	20		µg/L	5	6/19/2015 10:46:00 AM	R26968
Acetone	ND	50		µg/L	5	6/19/2015 10:46:00 AM	R26968
Bromobenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Bromodichloromethane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Bromoform	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Bromomethane	ND	15		µg/L	5	6/19/2015 10:46:00 AM	R26968
2-Butanone	ND	50		µg/L	5	6/19/2015 10:46:00 AM	R26968
Carbon disulfide	ND	50		µg/L	5	6/19/2015 10:46:00 AM	R26968
Carbon Tetrachloride	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Chlorobenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Chloroethane	ND	10		µg/L	5	6/19/2015 10:46:00 AM	R26968
Chloroform	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Chloromethane	ND	15		µg/L	5	6/19/2015 10:46:00 AM	R26968
2-Chlorotoluene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
4-Chlorotoluene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
cis-1,2-DCE	36	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/19/2015 10:46:00 AM	R26968
Dibromochloromethane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Dibromomethane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,1-Dichloroethane	120	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,1-Dichloroethene	58	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2-Dichloropropane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,3-Dichloropropane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
2,2-Dichloropropane	ND	10		µg/L	5	6/19/2015 10:46:00 AM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 9:58:00 AM

Lab ID: 1506567-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Hexachlorobutadiene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
2-Hexanone	ND	50		µg/L	5	6/19/2015 10:46:00 AM	R26968
Isopropylbenzene	11	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
4-Isopropyltoluene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
4-Methyl-2-pentanone	ND	50		µg/L	5	6/19/2015 10:46:00 AM	R26968
Methylene Chloride	ND	15		µg/L	5	6/19/2015 10:46:00 AM	R26968
n-Butylbenzene	ND	15		µg/L	5	6/19/2015 10:46:00 AM	R26968
n-Propylbenzene	16	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
sec-Butylbenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Styrene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
tert-Butylbenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/19/2015 10:46:00 AM	R26968
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
trans-1,2-DCE	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,1,1-Trichloroethane	11	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Trichlorofluoromethane	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
1,2,3-Trichloropropane	ND	10		µg/L	5	6/19/2015 10:46:00 AM	R26968
Vinyl chloride	ND	5.0		µg/L	5	6/19/2015 10:46:00 AM	R26968
Xylenes, Total	ND	7.5		µg/L	5	6/19/2015 10:46:00 AM	R26968
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	5	6/19/2015 10:46:00 AM	R26968
Surr: 4-Bromofluorobenzene	102	70-130		%REC	5	6/19/2015 10:46:00 AM	R26968
Surr: Dibromofluoromethane	97.7	70-130		%REC	5	6/19/2015 10:46:00 AM	R26968
Surr: Toluene-d8	98.7	70-130		%REC	5	6/19/2015 10:46:00 AM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 10:47:00 AM

Lab ID: 1506567-006

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 2:02:58 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 2:02:58 PM	R27034
Selenium	0.0050	0.0050		mg/L	5	6/23/2015 2:02:58 PM	R27034
Uranium	0.033	0.0050	*	mg/L	5	6/23/2015 2:02:58 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.32	0.0020		mg/L	1	6/22/2015 5:37:41 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:37:41 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:37:41 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:37:20 AM	R27081
Iron	0.64	0.020	*	mg/L	1	6/22/2015 5:37:41 PM	R27010
Manganese	3.2	0.010	*	mg/L	5	6/25/2015 10:39:27 AM	R27081
Silver	ND	0.0050		mg/L	1	6/22/2015 5:37:41 PM	R27010
Zinc	0.016	0.010		mg/L	1	6/22/2015 5:37:41 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.48	0.0020		mg/L	1	6/22/2015 3:29:08 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:29:08 PM	19841
Chromium	ND	0.0060		mg/L	1	6/22/2015 3:29:08 PM	19841
Copper	0.0083	0.0060		mg/L	1	6/22/2015 3:29:08 PM	19841
Iron	5.7	0.20	*	mg/L	10	6/22/2015 4:06:09 PM	19841
Manganese	3.7	0.020	*	mg/L	10	6/22/2015 4:06:09 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:29:08 PM	19841
Zinc	0.018	0.010		mg/L	1	6/22/2015 3:29:08 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 1:56:19 PM	19841
Lead	0.0089	0.0025		mg/L	5	6/24/2015 1:56:19 PM	19841
Selenium	ND	0.0050		mg/L	5	6/24/2015 1:56:19 PM	19841
Uranium	0.033	0.0025	*	mg/L	5	6/24/2015 1:56:19 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:53:13 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 3:45:40 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 3:45:40 PM	19687
Surr: DNOP	110	76.5-150		%REC	1	6/15/2015 3:45:40 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	11	0.50		mg/L	10	6/15/2015 1:49:26 PM	R26838
Surr: BFB	115	57.8-137		%REC	10	6/15/2015 1:49:26 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 10:47:00 AM

Lab ID: 1506567-006

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 2:36:55 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 2:36:55 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 2:36:55 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 2:36:55 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 24 of 91
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 10:47:00 AM

Lab ID: 1506567-006

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 2:36:55 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 2:36:55 PM	19714
Surr: 2-Fluorophenol	67.6	14.9-111		%REC	1	6/16/2015 2:36:55 PM	19714
Surr: Phenol-d5	66.2	11.3-108		%REC	1	6/16/2015 2:36:55 PM	19714
Surr: 2,4,6-Tribromophenol	123	15.7-154		%REC	1	6/16/2015 2:36:55 PM	19714
Surr: Nitrobenzene-d5	84.7	47.8-106		%REC	1	6/16/2015 2:36:55 PM	19714
Surr: 2-Fluorobiphenyl	104	21.3-123		%REC	1	6/16/2015 2:36:55 PM	19714
Surr: 4-Terphenyl-d14	108	14.3-135		%REC	1	6/16/2015 2:36:55 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 10:47:00 AM

Lab ID: 1506567-006

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	1000	50		µg/L	50	6/19/2015 5:29:37 AM	R26940
Toluene	6.6	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Ethylbenzene	99	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Methyl tert-butyl ether (MTBE)	210	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2,4-Trimethylbenzene	18	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2-Dichloroethane (EDC)	11	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Naphthalene	ND	10		µg/L	5	6/19/2015 5:57:23 AM	R26940
1-Methylnaphthalene	ND	20		µg/L	5	6/19/2015 5:57:23 AM	R26940
2-Methylnaphthalene	ND	20		µg/L	5	6/19/2015 5:57:23 AM	R26940
Acetone	ND	50		µg/L	5	6/19/2015 5:57:23 AM	R26940
Bromobenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Bromodichloromethane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Bromoform	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Bromomethane	ND	15		µg/L	5	6/19/2015 5:57:23 AM	R26940
2-Butanone	ND	50		µg/L	5	6/19/2015 5:57:23 AM	R26940
Carbon disulfide	ND	50		µg/L	5	6/19/2015 5:57:23 AM	R26940
Carbon Tetrachloride	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Chlorobenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Chloroethane	ND	10		µg/L	5	6/19/2015 5:57:23 AM	R26940
Chloroform	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Chloromethane	ND	15		µg/L	5	6/19/2015 5:57:23 AM	R26940
2-Chlorotoluene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
4-Chlorotoluene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
cis-1,2-DCE	44	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/19/2015 5:57:23 AM	R26940
Dibromochloromethane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Dibromomethane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,1-Dichloroethane	280	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,1-Dichloroethene	120	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2-Dichloropropane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,3-Dichloropropane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
2,2-Dichloropropane	ND	10		µg/L	5	6/19/2015 5:57:23 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 10:47:00 AM

Lab ID: 1506567-006

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Hexachlorobutadiene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
2-Hexanone	ND	50		µg/L	5	6/19/2015 5:57:23 AM	R26940
Isopropylbenzene	40	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
4-Isopropyltoluene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
4-Methyl-2-pentanone	ND	50		µg/L	5	6/19/2015 5:57:23 AM	R26940
Methylene Chloride	ND	15		µg/L	5	6/19/2015 5:57:23 AM	R26940
n-Butylbenzene	ND	15		µg/L	5	6/19/2015 5:57:23 AM	R26940
n-Propylbenzene	42	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
sec-Butylbenzene	6.1	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Styrene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
tert-Butylbenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/19/2015 5:57:23 AM	R26940
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
trans-1,2-DCE	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,1,1-Trichloroethane	50	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Trichloroethene (TCE)	29	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Trichlorofluoromethane	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
1,2,3-Trichloropropane	ND	10		µg/L	5	6/19/2015 5:57:23 AM	R26940
Vinyl chloride	ND	5.0		µg/L	5	6/19/2015 5:57:23 AM	R26940
Xylenes, Total	16	7.5		µg/L	5	6/19/2015 5:57:23 AM	R26940
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	5	6/19/2015 5:57:23 AM	R26940
Surr: 4-Bromofluorobenzene	101	70-130		%REC	5	6/19/2015 5:57:23 AM	R26940
Surr: Dibromofluoromethane	94.7	70-130		%REC	5	6/19/2015 5:57:23 AM	R26940
Surr: Toluene-d8	101	70-130		%REC	5	6/19/2015 5:57:23 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 11:53:00 AM

Lab ID: 1506567-007

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 2:06:01 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 2:06:01 PM	R27034
Selenium	0.0058	0.0050		mg/L	5	6/23/2015 2:06:01 PM	R27034
Uranium	0.048	0.0050	*	mg/L	5	6/23/2015 2:06:01 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	6/22/2015 5:39:46 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:39:46 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:39:46 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:41:29 AM	R27081
Iron	0.021	0.020		mg/L	1	6/22/2015 5:39:46 PM	R27010
Manganese	0.026	0.0020		mg/L	1	6/22/2015 5:39:46 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 5:39:46 PM	R27010
Zinc	0.032	0.010		mg/L	1	6/22/2015 5:39:46 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	6/22/2015 3:31:29 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:31:29 PM	19841
Chromium	ND	0.0060		mg/L	1	6/22/2015 3:31:29 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:31:29 PM	19841
Iron	2.9	0.10	*	mg/L	5	6/22/2015 4:08:10 PM	19841
Manganese	0.11	0.0020	*	mg/L	1	6/22/2015 3:31:29 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:31:29 PM	19841
Zinc	0.011	0.010		mg/L	1	6/22/2015 3:31:29 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 2:04:32 PM	19841
Lead	0.0029	0.0025		mg/L	5	6/24/2015 2:04:32 PM	19841
Selenium	ND	0.0050		mg/L	5	6/24/2015 2:04:32 PM	19841
Uranium	0.049	0.0025	*	mg/L	5	6/24/2015 2:04:32 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:55:19 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 4:07:08 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 4:07:08 PM	19687
Surr: DNOP	109	76.5-150		%REC	1	6/15/2015 4:07:08 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.11	0.050		mg/L	1	6/15/2015 2:14:54 PM	R26838
Surr: BFB	92.4	57.8-137		%REC	1	6/15/2015 2:14:54 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 11:53:00 AM

Lab ID: 1506567-007

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Acenaphthene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 3:05:10 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 3:05:10 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 3:05:10 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 3:05:10 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 11:53:00 AM

Lab ID: 1506567-007

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 3:05:10 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 3:05:10 PM	19714
Surr: 2-Fluorophenol	64.1	14.9-111		%REC	1	6/16/2015 3:05:10 PM	19714
Surr: Phenol-d5	77.2	11.3-108		%REC	1	6/16/2015 3:05:10 PM	19714
Surr: 2,4,6-Tribromophenol	90.9	15.7-154		%REC	1	6/16/2015 3:05:10 PM	19714
Surr: Nitrobenzene-d5	103	47.8-106		%REC	1	6/16/2015 3:05:10 PM	19714
Surr: 2-Fluorobiphenyl	114	21.3-123		%REC	1	6/16/2015 3:05:10 PM	19714
Surr: 4-Terphenyl-d14	113	14.3-135		%REC	1	6/16/2015 3:05:10 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 11:53:00 AM

Lab ID: 1506567-007

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Toluene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Methyl tert-butyl ether (MTBE)	56	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2-Dichloroethane (EDC)	18	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Naphthalene	ND	2.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Acetone	ND	10		µg/L	1	6/19/2015 6:25:00 AM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Bromoform	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Bromomethane	ND	3.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
2-Butanone	ND	10		µg/L	1	6/19/2015 6:25:00 AM	R26940
Carbon disulfide	ND	10		µg/L	1	6/19/2015 6:25:00 AM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Chloroethane	ND	2.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Chloroform	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Chloromethane	ND	3.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
cis-1,2-DCE	1.7	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,1-Dichloroethane	29	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,1-Dichloroethene	53	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 6:25:00 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 11:53:00 AM

Lab ID: 1506567-007

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
2-Hexanone	ND	10		µg/L	1	6/19/2015 6:25:00 AM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 6:25:00 AM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Styrene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,1,1-Trichloroethane	4.9	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,1,2-Trichloroethane	1.6	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Trichloroethene (TCE)	3.1	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 6:25:00 AM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 6:25:00 AM	R26940
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	6/19/2015 6:25:00 AM	R26940
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	6/19/2015 6:25:00 AM	R26940
Surr: Dibromofluoromethane	93.7	70-130		%REC	1	6/19/2015 6:25:00 AM	R26940
Surr: Toluene-d8	100	70-130		%REC	1	6/19/2015 6:25:00 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:14:00 PM

Lab ID: 1506567-008

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 2:09:05 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 2:09:05 PM	R27034
Selenium	0.0096	0.0050		mg/L	5	6/23/2015 2:09:05 PM	R27034
Uranium	0.069	0.0050	*	mg/L	5	6/23/2015 2:09:05 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.16	0.0020		mg/L	1	6/22/2015 5:51:04 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:51:04 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:51:04 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:43:36 AM	R27081
Iron	0.11	0.020		mg/L	1	6/22/2015 5:51:04 PM	R27010
Manganese	0.15	0.0020	*	mg/L	1	6/22/2015 5:51:04 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 5:51:04 PM	R27010
Zinc	0.022	0.010		mg/L	1	6/22/2015 5:51:04 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.24	0.0020		mg/L	1	6/22/2015 3:33:08 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:33:08 PM	19841
Chromium	ND	0.0060		mg/L	1	6/22/2015 3:33:08 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:33:08 PM	19841
Iron	4.0	0.20	*	mg/L	10	6/22/2015 4:10:31 PM	19841
Manganese	0.21	0.0020	*	mg/L	1	6/22/2015 3:33:08 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:33:08 PM	19841
Zinc	0.021	0.010		mg/L	1	6/22/2015 3:33:08 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 2:07:15 PM	19841
Lead	0.0052	0.0025		mg/L	5	6/24/2015 2:07:15 PM	19841
Selenium	ND	0.010		mg/L	10	6/24/2015 3:43:36 PM	19841
Uranium	0.075	0.0025	*	mg/L	5	6/24/2015 2:07:15 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:57:17 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 4:28:31 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 4:28:31 PM	19687
Surr: DNOP	106	76.5-150		%REC	1	6/15/2015 4:28:31 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/15/2015 2:40:03 PM	R26838
Surr: BFB	87.2	57.8-137		%REC	1	6/15/2015 2:40:03 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:14:00 PM

Lab ID: 1506567-008

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
Acenaphthene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 3:33:21 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 3:33:21 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 3:33:21 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 3:33:21 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:14:00 PM

Lab ID: 1506567-008

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 3:33:21 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 3:33:21 PM	19714
Surr: 2-Fluorophenol	50.3	14.9-111		%REC	1	6/16/2015 3:33:21 PM	19714
Surr: Phenol-d5	43.3	11.3-108		%REC	1	6/16/2015 3:33:21 PM	19714
Surr: 2,4,6-Tribromophenol	75.5	15.7-154		%REC	1	6/16/2015 3:33:21 PM	19714
Surr: Nitrobenzene-d5	61.4	47.8-106		%REC	1	6/16/2015 3:33:21 PM	19714
Surr: 2-Fluorobiphenyl	68.4	21.3-123		%REC	1	6/16/2015 3:33:21 PM	19714
Surr: 4-Terphenyl-d14	73.3	14.3-135		%REC	1	6/16/2015 3:33:21 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:14:00 PM

Lab ID: 1506567-008

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Toluene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Naphthalene	ND	2.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Acetone	ND	10		µg/L	1	6/19/2015 6:52:35 AM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Bromoform	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Bromomethane	ND	3.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
2-Butanone	ND	10		µg/L	1	6/19/2015 6:52:35 AM	R26940
Carbon disulfide	ND	10		µg/L	1	6/19/2015 6:52:35 AM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Chloroethane	ND	2.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Chloroform	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Chloromethane	ND	3.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 6:52:35 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:14:00 PM

Lab ID: 1506567-008

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
2-Hexanone	ND	10		µg/L	1	6/19/2015 6:52:35 AM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 6:52:35 AM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Styrene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 6:52:35 AM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 6:52:35 AM	R26940
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	6/19/2015 6:52:35 AM	R26940
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/19/2015 6:52:35 AM	R26940
Surr: Dibromofluoromethane	94.4	70-130		%REC	1	6/19/2015 6:52:35 AM	R26940
Surr: Toluene-d8	101	70-130		%REC	1	6/19/2015 6:52:35 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:51:00 PM

Lab ID: 1506567-009

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	6/23/2015 3:19:31 PM	R27034
Lead	ND	0.050		mg/L	50	6/23/2015 3:19:31 PM	R27034
Selenium	ND	0.10	*	mg/L	100	6/23/2015 3:37:55 PM	R27034
Uranium	0.23	0.050	*	mg/L	50	6/23/2015 3:19:31 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.12	0.0020		mg/L	1	6/22/2015 5:53:07 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:53:07 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:53:07 PM	R27010
Copper	ND	0.0060		mg/L	1	7/1/2015 7:36:02 AM	R27214
Iron	1.1	0.10	*	mg/L	5	6/25/2015 10:55:20 AM	R27081
Manganese	15	0.040	*	mg/L	20	6/25/2015 10:57:25 AM	R27081
Silver	ND	0.0050		mg/L	1	6/22/2015 5:53:07 PM	R27010
Zinc	0.032	0.010		mg/L	1	6/22/2015 5:53:07 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.20	0.0020		mg/L	1	6/22/2015 3:34:57 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:34:57 PM	19841
Chromium	ND	0.0060		mg/L	1	6/22/2015 3:34:57 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:34:57 PM	19841
Iron	4.8	0.40	*	mg/L	20	6/22/2015 4:12:27 PM	19841
Manganese	14	0.040	*	mg/L	20	6/22/2015 4:12:27 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:34:57 PM	19841
Zinc	0.024	0.010		mg/L	1	6/22/2015 3:34:57 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.10		mg/L	100	6/24/2015 4:08:10 PM	19841
Lead	ND	0.010		mg/L	20	6/24/2015 3:46:19 PM	19841
Selenium	ND	0.10	*	mg/L	100	6/24/2015 4:08:10 PM	19841
Uranium	0.25	0.010	*	mg/L	20	6/24/2015 3:46:19 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 2:59:16 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 4:50:01 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 4:50:01 PM	19687
Surr: DNOP	102	76.5-150		%REC	1	6/15/2015 4:50:01 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/15/2015 3:05:15 PM	R26838
Surr: BFB	90.9	57.8-137		%REC	1	6/15/2015 3:05:15 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:51:00 PM

Lab ID: 1506567-009

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Acenaphthylene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Aniline	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Anthracene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Azobenzene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Benz(a)anthracene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Benzo(a)pyrene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Benzo(b)fluoranthene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Benzo(g,h,i)perylene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Benzo(k)fluoranthene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Benzoic acid	ND	24		µg/L	1	6/17/2015 6:28:05 PM	19773
Benzyl alcohol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Bis(2-chloroethoxy)methane	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Bis(2-chloroethyl)ether	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Bis(2-chloroisopropyl)ether	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Bis(2-ethylhexyl)phthalate	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
4-Bromophenyl phenyl ether	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Butyl benzyl phthalate	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Carbazole	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
4-Chloro-3-methylphenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
4-Chloroaniline	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2-Chloronaphthalene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2-Chlorophenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
4-Chlorophenyl phenyl ether	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Chrysene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Di-n-butyl phthalate	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Di-n-octyl phthalate	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Dibenz(a,h)anthracene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Dibenzofuran	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
1,2-Dichlorobenzene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
1,3-Dichlorobenzene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
1,4-Dichlorobenzene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
3,3'-Dichlorobenzidine	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Diethyl phthalate	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Dimethyl phthalate	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2,4-Dichlorophenol	ND	24		µg/L	1	6/17/2015 6:28:05 PM	19773
2,4-Dimethylphenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
4,6-Dinitro-2-methylphenol	ND	24		µg/L	1	6/17/2015 6:28:05 PM	19773
2,4-Dinitrophenol	ND	24		µg/L	1	6/17/2015 6:28:05 PM	19773

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:51:00 PM

Lab ID: 1506567-009

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
2,4-Dinitrotoluene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2,6-Dinitrotoluene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Fluoranthene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Fluorene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Hexachlorobenzene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Hexachlorobutadiene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Hexachlorocyclopentadiene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Hexachloroethane	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Indeno(1,2,3-cd)pyrene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Isophorone	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
1-Methylnaphthalene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2-Methylnaphthalene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2-Methylphenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
3+4-Methylphenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
N-Nitrosodi-n-propylamine	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
N-Nitrosodimethylamine	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
N-Nitrosodiphenylamine	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Naphthalene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2-Nitroaniline	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
3-Nitroaniline	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
4-Nitroaniline	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Nitrobenzene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2-Nitrophenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
4-Nitrophenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Pentachlorophenol	ND	24		µg/L	1	6/17/2015 6:28:05 PM	19773
Phenanthrene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Phenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Pyrene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Pyridine	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
1,2,4-Trichlorobenzene	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2,4,5-Trichlorophenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
2,4,6-Trichlorophenol	ND	12		µg/L	1	6/17/2015 6:28:05 PM	19773
Surr: 2-Fluorophenol	48.8	14.9-111		%REC	1	6/17/2015 6:28:05 PM	19773
Surr: Phenol-d5	43.1	11.3-108		%REC	1	6/17/2015 6:28:05 PM	19773
Surr: 2,4,6-Tribromophenol	61.5	15.7-154		%REC	1	6/17/2015 6:28:05 PM	19773
Surr: Nitrobenzene-d5	75.6	47.8-106		%REC	1	6/17/2015 6:28:05 PM	19773
Surr: 2-Fluorobiphenyl	70.5	21.3-123		%REC	1	6/17/2015 6:28:05 PM	19773
Surr: 4-Terphenyl-d14	74.1	14.3-135		%REC	1	6/17/2015 6:28:05 PM	19773

EPA METHOD 8260B: VOLATILESAnalyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Page 40 of 91

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:51:00 PM

Lab ID: 1506567-009

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Toluene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Naphthalene	ND	2.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Acetone	ND	10		µg/L	1	6/19/2015 7:20:19 AM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Bromoform	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Bromomethane	ND	3.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
2-Butanone	ND	10		µg/L	1	6/19/2015 7:20:19 AM	R26940
Carbon disulfide	ND	10		µg/L	1	6/19/2015 7:20:19 AM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Chloroethane	ND	2.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Chloroform	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Chloromethane	ND	3.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 7:20:19 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 12:51:00 PM

Lab ID: 1506567-009

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
2-Hexanone	ND	10		µg/L	1	6/19/2015 7:20:19 AM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 7:20:19 AM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Styrene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 7:20:19 AM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 7:20:19 AM	R26940
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	6/19/2015 7:20:19 AM	R26940
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	6/19/2015 7:20:19 AM	R26940
Surr: Dibromofluoromethane	92.4	70-130		%REC	1	6/19/2015 7:20:19 AM	R26940
Surr: Toluene-d8	97.7	70-130		%REC	1	6/19/2015 7:20:19 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 1:39:00 PM

Lab ID: 1506567-010

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 2:24:26 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 2:24:26 PM	R27034
Selenium	0.015	0.0050		mg/L	5	6/23/2015 2:24:26 PM	R27034
Uranium	0.21	0.010	*	mg/L	10	6/23/2015 3:31:49 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.050	0.0020		mg/L	1	6/22/2015 5:55:12 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:55:12 PM	R27010
Chromium	0.0099	0.0060		mg/L	1	6/22/2015 5:55:12 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 10:59:18 AM	R27081
Iron	0.91	0.020	*	mg/L	1	6/22/2015 5:55:12 PM	R27010
Manganese	0.042	0.0020		mg/L	1	6/22/2015 5:55:12 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 5:55:12 PM	R27010
Zinc	0.021	0.010		mg/L	1	6/22/2015 5:55:12 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.18	0.0020		mg/L	1	6/22/2015 3:36:57 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:36:57 PM	19841
Chromium	0.017	0.0060		mg/L	1	6/22/2015 3:36:57 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:36:57 PM	19841
Iron	11	0.40	*	mg/L	20	6/22/2015 4:14:22 PM	19841
Manganese	0.26	0.0020	*	mg/L	1	6/22/2015 3:36:57 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:36:57 PM	19841
Zinc	0.052	0.010		mg/L	1	6/22/2015 3:36:57 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/24/2015 3:49:02 PM	19841
Lead	0.014	0.0025		mg/L	5	6/24/2015 2:15:27 PM	19841
Selenium	0.014	0.0050		mg/L	5	6/24/2015 2:15:27 PM	19841
Uranium	0.21	0.0050	*	mg/L	10	6/24/2015 3:49:02 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 3:01:16 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 5:11:25 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 5:11:25 PM	19687
Surr: DNOP	107	76.5-150		%REC	1	6/15/2015 5:11:25 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/15/2015 3:30:24 PM	R26838
Surr: BFB	89.0	57.8-137		%REC	1	6/15/2015 3:30:24 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 1:39:00 PM

Lab ID: 1506567-010

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 4:29:42 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 4:29:42 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 4:29:42 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 4:29:42 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 1:39:00 PM

Lab ID: 1506567-010

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 4:29:42 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 4:29:42 PM	19714
Surr: 2-Fluorophenol	67.9	14.9-111		%REC	1	6/16/2015 4:29:42 PM	19714
Surr: Phenol-d5	62.8	11.3-108		%REC	1	6/16/2015 4:29:42 PM	19714
Surr: 2,4,6-Tribromophenol	107	15.7-154		%REC	1	6/16/2015 4:29:42 PM	19714
Surr: Nitrobenzene-d5	83.2	47.8-106		%REC	1	6/16/2015 4:29:42 PM	19714
Surr: 2-Fluorobiphenyl	82.7	21.3-123		%REC	1	6/16/2015 4:29:42 PM	19714
Surr: 4-Terphenyl-d14	90.9	14.3-135		%REC	1	6/16/2015 4:29:42 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 1:39:00 PM

Lab ID: 1506567-010

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Toluene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Ethylbenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Naphthalene	ND	4.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1-Methylnaphthalene	ND	8.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
2-Methylnaphthalene	ND	8.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Acetone	ND	20		µg/L	2	6/19/2015 7:47:59 AM	R26940
Bromobenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Bromodichloromethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Bromoform	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Bromomethane	ND	6.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
2-Butanone	ND	20		µg/L	2	6/19/2015 7:47:59 AM	R26940
Carbon disulfide	ND	20		µg/L	2	6/19/2015 7:47:59 AM	R26940
Carbon Tetrachloride	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Chlorobenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Chloroethane	ND	4.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Chloroform	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Chloromethane	ND	6.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
2-Chlorotoluene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
4-Chlorotoluene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
cis-1,2-DCE	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Dibromochloromethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Dibromomethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,3-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,4-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Dichlorodifluoromethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,1-Dichloroethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,1-Dichloroethene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2-Dichloropropane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,3-Dichloropropane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
2,2-Dichloropropane	ND	4.0		µg/L	2	6/19/2015 7:47:59 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 1:39:00 PM

Lab ID: 1506567-010

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,1-Dichloropropene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Hexachlorobutadiene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
2-Hexanone	ND	20		µg/L	2	6/19/2015 7:47:59 AM	R26940
Isopropylbenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
4-Isopropyltoluene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
4-Methyl-2-pentanone	ND	20		µg/L	2	6/19/2015 7:47:59 AM	R26940
Methylene Chloride	ND	6.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
n-Butylbenzene	ND	6.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
n-Propylbenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
sec-Butylbenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Styrene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
tert-Butylbenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
trans-1,2-DCE	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,1,1-Trichloroethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,1,2-Trichloroethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Trichloroethene (TCE)	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Trichlorofluoromethane	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
1,2,3-Trichloropropane	ND	4.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Vinyl chloride	ND	2.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Xylenes, Total	ND	3.0		µg/L	2	6/19/2015 7:47:59 AM	R26940
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%REC	2	6/19/2015 7:47:59 AM	R26940
Surr: 4-Bromofluorobenzene	107	70-130		%REC	2	6/19/2015 7:47:59 AM	R26940
Surr: Dibromofluoromethane	91.7	70-130		%REC	2	6/19/2015 7:47:59 AM	R26940
Surr: Toluene-d8	106	70-130		%REC	2	6/19/2015 7:47:59 AM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-21

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:00:00 PM

Lab ID: 1506567-011

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
Acenaphthene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 4:57:53 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 4:57:53 PM	19714
2,4-Dimethylphenol	11	10		µg/L	1	6/16/2015 4:57:53 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 4:57:53 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 4:57:53 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-21

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:00:00 PM

Lab ID: 1506567-011

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
3+4-Methylphenol	110	10		µg/L	1	6/16/2015 4:57:53 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 4:57:53 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Phenol	35	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 4:57:53 PM	19714
Surr: 2-Fluorophenol	36.5	14.9-111		%REC	1	6/16/2015 4:57:53 PM	19714
Surr: Phenol-d5	32.9	11.3-108		%REC	1	6/16/2015 4:57:53 PM	19714
Surr: 2,4,6-Tribromophenol	58.1	15.7-154		%REC	1	6/16/2015 4:57:53 PM	19714
Surr: Nitrobenzene-d5	53.0	47.8-106		%REC	1	6/16/2015 4:57:53 PM	19714
Surr: 2-Fluorobiphenyl	55.3	21.3-123		%REC	1	6/16/2015 4:57:53 PM	19714
Surr: 4-Terphenyl-d14	61.8	14.3-135		%REC	1	6/16/2015 4:57:53 PM	19714

EPA METHOD 8260B: VOLATILESAnalyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-21

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:00:00 PM

Lab ID: 1506567-011

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	6200	100		µg/L	100	6/19/2015 7:34:34 PM	R26968
Toluene	480	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Ethylbenzene	180	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Methyl tert-butyl ether (MTBE)	820	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2,4-Trimethylbenzene	110	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,3,5-Trimethylbenzene	47	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Naphthalene	ND	20		µg/L	10	6/19/2015 8:02:19 PM	R26968
1-Methylnaphthalene	ND	40		µg/L	10	6/19/2015 8:02:19 PM	R26968
2-Methylnaphthalene	ND	40		µg/L	10	6/19/2015 8:02:19 PM	R26968
Acetone	ND	100		µg/L	10	6/19/2015 8:02:19 PM	R26968
Bromobenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Bromodichloromethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Bromoform	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Bromomethane	ND	30		µg/L	10	6/19/2015 8:02:19 PM	R26968
2-Butanone	ND	100		µg/L	10	6/19/2015 8:02:19 PM	R26968
Carbon disulfide	ND	100		µg/L	10	6/19/2015 8:02:19 PM	R26968
Carbon Tetrachloride	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Chlorobenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Chloroethane	ND	20		µg/L	10	6/19/2015 8:02:19 PM	R26968
Chloroform	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Chloromethane	ND	30		µg/L	10	6/19/2015 8:02:19 PM	R26968
2-Chlorotoluene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
4-Chlorotoluene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
cis-1,2-DCE	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/19/2015 8:02:19 PM	R26968
Dibromochloromethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Dibromomethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2-Dichlorobenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,3-Dichlorobenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,4-Dichlorobenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Dichlorodifluoromethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,1-Dichloroethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,1-Dichloroethene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2-Dichloropropane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,3-Dichloropropane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
2,2-Dichloropropane	ND	20		µg/L	10	6/19/2015 8:02:19 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-21

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:00:00 PM

Lab ID: 1506567-011

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Hexachlorobutadiene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
2-Hexanone	110	100		µg/L	10	6/19/2015 8:02:19 PM	R26968
Isopropylbenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
4-Isopropyltoluene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
4-Methyl-2-pentanone	ND	100		µg/L	10	6/19/2015 8:02:19 PM	R26968
Methylene Chloride	ND	30		µg/L	10	6/19/2015 8:02:19 PM	R26968
n-Butylbenzene	ND	30		µg/L	10	6/19/2015 8:02:19 PM	R26968
n-Propylbenzene	15	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
sec-Butylbenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Styrene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
tert-Butylbenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/19/2015 8:02:19 PM	R26968
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
trans-1,2-DCE	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,1,1-Trichloroethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,1,2-Trichloroethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Trichloroethene (TCE)	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Trichlorofluoromethane	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
1,2,3-Trichloropropane	ND	20		µg/L	10	6/19/2015 8:02:19 PM	R26968
Vinyl chloride	ND	10		µg/L	10	6/19/2015 8:02:19 PM	R26968
Xylenes, Total	810	15		µg/L	10	6/19/2015 8:02:19 PM	R26968
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	10	6/19/2015 8:02:19 PM	R26968
Surr: 4-Bromofluorobenzene	105	70-130		%REC	10	6/19/2015 8:02:19 PM	R26968
Surr: Dibromofluoromethane	98.1	70-130		%REC	10	6/19/2015 8:02:19 PM	R26968
Surr: Toluene-d8	95.9	70-130		%REC	10	6/19/2015 8:02:19 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:37:00 PM

Lab ID: 1506567-012

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/23/2015 3:34:52 PM	R27034
Lead	ND	0.010		mg/L	10	6/23/2015 3:34:52 PM	R27034
Selenium	ND	0.010		mg/L	10	6/23/2015 3:34:52 PM	R27034
Uranium	ND	0.010		mg/L	10	6/23/2015 3:34:52 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	67	0.20	*	mg/L	100	6/25/2015 11:07:03 AM	R27081
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:57:33 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:57:33 PM	R27010
Copper	ND	0.0060		mg/L	1	7/1/2015 7:38:08 AM	R27214
Iron	60	2.0	*	mg/L	100	6/25/2015 11:07:03 AM	R27081
Manganese	8.8	0.020	*	mg/L	10	6/25/2015 11:05:11 AM	R27081
Silver	ND	0.0050		mg/L	1	6/22/2015 5:57:33 PM	R27010
Zinc	0.012	0.010		mg/L	1	6/22/2015 5:57:33 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	58	0.20	*	mg/L	100	6/22/2015 4:27:28 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:38:55 PM	19841
Chromium	ND	0.0060		mg/L	1	6/22/2015 3:38:55 PM	19841
Copper	ND	0.060		mg/L	10	6/22/2015 4:25:30 PM	19841
Iron	59	2.0	*	mg/L	100	6/22/2015 4:27:28 PM	19841
Manganese	8.0	0.020	*	mg/L	10	6/22/2015 4:25:30 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:38:55 PM	19841
Zinc	0.042	0.010		mg/L	1	6/22/2015 3:38:55 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 2:18:10 PM	19841
Lead	0.031	0.0025	*	mg/L	5	6/24/2015 2:18:10 PM	19841
Selenium	ND	0.0050		mg/L	5	6/24/2015 2:18:10 PM	19841
Uranium	0.0029	0.0025		mg/L	5	6/24/2015 2:18:10 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 3:03:19 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	44	1.0		mg/L	1	6/15/2015 5:32:53 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 5:32:53 PM	19687
Surr: DNOP	110	76.5-150		%REC	1	6/15/2015 5:32:53 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.44	0.050		mg/L	1	6/15/2015 3:55:31 PM	R26838
Surr: BFB	228	57.8-137	S	%REC	1	6/15/2015 3:55:31 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:37:00 PM

Lab ID: 1506567-012

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 5:26:04 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Carbazole	26	10		µg/L	1	6/16/2015 5:26:04 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 5:26:04 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 5:26:04 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 5:26:04 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:37:00 PM

Lab ID: 1506567-012

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Fluorene	13	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
1-Methylnaphthalene	140	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2-Methylnaphthalene	43	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Naphthalene	64	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 5:26:04 PM	19714
Phenanthrene	14	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 5:26:04 PM	19714
Surr: 2-Fluorophenol	63.0	14.9-111		%REC	1	6/16/2015 5:26:04 PM	19714
Surr: Phenol-d5	67.5	11.3-108		%REC	1	6/16/2015 5:26:04 PM	19714
Surr: 2,4,6-Tribromophenol	89.0	15.7-154		%REC	1	6/16/2015 5:26:04 PM	19714
Surr: Nitrobenzene-d5	92.5	47.8-106		%REC	1	6/16/2015 5:26:04 PM	19714
Surr: 2-Fluorobiphenyl	103	21.3-123		%REC	1	6/16/2015 5:26:04 PM	19714
Surr: 4-Terphenyl-d14	97.3	14.3-135		%REC	1	6/16/2015 5:26:04 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:37:00 PM

Lab ID: 1506567-012

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	25	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Toluene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Ethylbenzene	64	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2,4-Trimethylbenzene	120	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Naphthalene	93	4.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1-Methylnaphthalene	130	8.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
2-Methylnaphthalene	66	8.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Acetone	ND	20		µg/L	2	6/19/2015 8:30:05 PM	R26968
Bromobenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Bromodichloromethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Bromoform	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Bromomethane	ND	6.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
2-Butanone	ND	20		µg/L	2	6/19/2015 8:30:05 PM	R26968
Carbon disulfide	ND	20		µg/L	2	6/19/2015 8:30:05 PM	R26968
Carbon Tetrachloride	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Chlorobenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Chloroethane	ND	4.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Chloroform	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Chloromethane	ND	6.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
2-Chlorotoluene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
4-Chlorotoluene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
cis-1,2-DCE	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Dibromochloromethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Dibromomethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,3-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,4-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Dichlorodifluoromethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,1-Dichloroethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,1-Dichloroethene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2-Dichloropropane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,3-Dichloropropane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
2,2-Dichloropropane	ND	4.0		µg/L	2	6/19/2015 8:30:05 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 55 of 91
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 3:37:00 PM

Lab ID: 1506567-012

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,1-Dichloropropene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Hexachlorobutadiene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
2-Hexanone	ND	20		µg/L	2	6/19/2015 8:30:05 PM	R26968
Isopropylbenzene	20	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
4-Isopropyltoluene	8.1	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
4-Methyl-2-pentanone	ND	20		µg/L	2	6/19/2015 8:30:05 PM	R26968
Methylene Chloride	ND	6.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
n-Butylbenzene	7.1	6.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
n-Propylbenzene	28	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
sec-Butylbenzene	12	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Styrene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
tert-Butylbenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
trans-1,2-DCE	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,1,1-Trichloroethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,1,2-Trichloroethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Trichloroethene (TCE)	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Trichlorofluoromethane	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
1,2,3-Trichloropropane	ND	4.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Vinyl chloride	ND	2.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Xylenes, Total	ND	3.0		µg/L	2	6/19/2015 8:30:05 PM	R26968
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	2	6/19/2015 8:30:05 PM	R26968
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	2	6/19/2015 8:30:05 PM	R26968
Surr: Dibromofluoromethane	97.8	70-130		%REC	2	6/19/2015 8:30:05 PM	R26968
Surr: Toluene-d8	98.2	70-130		%REC	2	6/19/2015 8:30:05 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 4:00:00 PM

Lab ID: 1506567-013

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/23/2015 2:33:38 PM	R27034
Lead	ND	0.0050		mg/L	5	6/23/2015 2:33:38 PM	R27034
Selenium	ND	0.0050		mg/L	5	6/23/2015 2:33:38 PM	R27034
Uranium	0.021	0.0050		mg/L	5	6/23/2015 2:33:38 PM	R27034
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.074	0.0020		mg/L	1	6/22/2015 5:59:26 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 5:59:26 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 5:59:26 PM	R27010
Copper	ND	0.0060		mg/L	1	6/25/2015 11:09:13 AM	R27081
Iron	0.31	0.020	*	mg/L	1	6/22/2015 5:59:26 PM	R27010
Manganese	3.1	0.010	*	mg/L	5	6/25/2015 11:11:18 AM	R27081
Silver	ND	0.0050		mg/L	1	6/22/2015 5:59:26 PM	R27010
Zinc	0.021	0.010		mg/L	1	6/22/2015 5:59:26 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.43	0.0020		mg/L	1	6/22/2015 3:40:46 PM	19841
Cadmium	ND	0.0020		mg/L	1	6/22/2015 3:40:46 PM	19841
Chromium	0.0060	0.0060		mg/L	1	6/22/2015 3:40:46 PM	19841
Copper	ND	0.0060		mg/L	1	6/22/2015 3:40:46 PM	19841
Iron	6.4	0.20	*	mg/L	10	6/22/2015 4:29:29 PM	19841
Manganese	3.7	0.020	*	mg/L	10	6/22/2015 4:29:29 PM	19841
Silver	ND	0.0050		mg/L	1	6/22/2015 3:40:46 PM	19841
Zinc	0.022	0.010		mg/L	1	6/22/2015 3:40:46 PM	19841
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/24/2015 2:20:54 PM	19841
Lead	0.0080	0.0025		mg/L	5	6/24/2015 2:20:54 PM	19841
Selenium	ND	0.0050		mg/L	5	6/24/2015 2:20:54 PM	19841
Uranium	0.022	0.0025		mg/L	5	6/24/2015 2:20:54 PM	19841
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 3:05:20 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 5:54:15 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 5:54:15 PM	19687
Surr: DNOP	112	76.5-150		%REC	1	6/15/2015 5:54:15 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.20	0.050		mg/L	1	6/15/2015 4:20:38 PM	R26838
Surr: BFB	107	57.8-137		%REC	1	6/15/2015 4:20:38 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 4:00:00 PM

Lab ID: 1506567-013

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 5:54:12 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 5:54:12 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 5:54:12 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 5:54:12 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 4:00:00 PM

Lab ID: 1506567-013

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 5:54:12 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 5:54:12 PM	19714
Surr: 2-Fluorophenol	21.8	14.9-111		%REC	1	6/16/2015 5:54:12 PM	19714
Surr: Phenol-d5	47.5	11.3-108		%REC	1	6/16/2015 5:54:12 PM	19714
Surr: 2,4,6-Tribromophenol	33.4	15.7-154		%REC	1	6/16/2015 5:54:12 PM	19714
Surr: Nitrobenzene-d5	92.2	47.8-106		%REC	1	6/16/2015 5:54:12 PM	19714
Surr: 2-Fluorobiphenyl	92.5	21.3-123		%REC	1	6/16/2015 5:54:12 PM	19714
Surr: 4-Terphenyl-d14	122	14.3-135		%REC	1	6/16/2015 5:54:12 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 4:00:00 PM

Lab ID: 1506567-013

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	5.4	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Toluene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Methyl tert-butyl ether (MTBE)	7.6	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Naphthalene	ND	2.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Acetone	ND	10		µg/L	1	6/19/2015 8:57:48 PM	R26968
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Bromoform	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Bromomethane	ND	3.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
2-Butanone	ND	10		µg/L	1	6/19/2015 8:57:48 PM	R26968
Carbon disulfide	ND	10		µg/L	1	6/19/2015 8:57:48 PM	R26968
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Chloroethane	ND	2.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Chloroform	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Chloromethane	ND	3.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 8:57:48 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015 4:00:00 PM

Lab ID: 1506567-013

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
2-Hexanone	ND	10		µg/L	1	6/19/2015 8:57:48 PM	R26968
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 8:57:48 PM	R26968
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Styrene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 8:57:48 PM	R26968
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 8:57:48 PM	R26968
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	6/19/2015 8:57:48 PM	R26968
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	1	6/19/2015 8:57:48 PM	R26968
Surr: Dibromofluoromethane	90.5	70-130		%REC	1	6/19/2015 8:57:48 PM	R26968
Surr: Toluene-d8	94.9	70-130		%REC	1	6/19/2015 8:57:48 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015

Lab ID: 1506567-014

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
Acenaphthene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 6:22:24 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 6:22:24 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 6:22:24 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 6:22:24 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/10/2015

Lab ID: 1506567-014

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 6:22:24 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 6:22:24 PM	19714
Surr: 2-Fluorophenol	54.7	14.9-111		%REC	1	6/16/2015 6:22:24 PM	19714
Surr: Phenol-d5	74.5	11.3-108		%REC	1	6/16/2015 6:22:24 PM	19714
Surr: 2,4,6-Tribromophenol	70.8	15.7-154		%REC	1	6/16/2015 6:22:24 PM	19714
Surr: Nitrobenzene-d5	118	47.8-106	S	%REC	1	6/16/2015 6:22:24 PM	19714
Surr: 2-Fluorobiphenyl	122	21.3-123		%REC	1	6/16/2015 6:22:24 PM	19714
Surr: 4-Terphenyl-d14	133	14.3-135		%REC	1	6/16/2015 6:22:24 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 2nd QTR (MKTF)

Collection Date:

Lab ID: 1506567-015

Matrix: TRIP BLANK

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Toluene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Ethylbenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Naphthalene	ND	2.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Acetone	ND	10		µg/L	1	6/19/2015 11:43:47 PM	R26968
Bromobenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Bromoform	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Bromomethane	ND	3.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
2-Butanone	ND	10		µg/L	1	6/19/2015 11:43:47 PM	R26968
Carbon disulfide	ND	10		µg/L	1	6/19/2015 11:43:47 PM	R26968
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Chlorobenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Chloroethane	ND	2.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Chloroform	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Chloromethane	ND	3.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Dibromomethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2015 11:43:47 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506567

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 2nd QTR (MKTF)

Collection Date:

Lab ID: 1506567-015

Matrix: TRIP BLANK

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
2-Hexanone	ND	10		µg/L	1	6/19/2015 11:43:47 PM	R26968
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2015 11:43:47 PM	R26968
Methylene Chloride	ND	3.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Styrene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Vinyl chloride	ND	1.0		µg/L	1	6/19/2015 11:43:47 PM	R26968
Xylenes, Total	ND	1.5		µg/L	1	6/19/2015 11:43:47 PM	R26968
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	6/19/2015 11:43:47 PM	R26968
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	1	6/19/2015 11:43:47 PM	R26968
Surr: Dibromofluoromethane	93.2	70-130		%REC	1	6/19/2015 11:43:47 PM	R26968
Surr: Toluene-d8	98.4	70-130		%REC	1	6/19/2015 11:43:47 PM	R26968

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB		SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	PBW		Batch ID: R27010			RunNo: 27010				
Prep Date:			Analysis Date: 6/22/2015			SeqNo: 806925		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R27010			RunNo: 27010				
Prep Date:			Analysis Date: 6/22/2015			SeqNo: 806926		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.54	0.0020	0.5000	0	107	85	115			
Chromium	0.53	0.0060	0.5000	0	105	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Silver	0.11	0.0050	0.1000	0	107	85	115			
Zinc	0.54	0.010	0.5000	0	107	85	115			

Sample ID	MB		SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	PBW		Batch ID: R27081			RunNo: 27081				
Prep Date:			Analysis Date: 6/25/2015			SeqNo: 809404		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								

Sample ID	MB		SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	PBW		Batch ID: R27081			RunNo: 27081				
Prep Date:			Analysis Date: 6/25/2015			SeqNo: 809406		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R27081		RunNo: 27081					
Prep Date:			Analysis Date: 6/25/2015		SeqNo: 809567		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	97.0	85	115			
Copper	0.47	0.0060	0.5000	0	94.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	98.7	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R27081		RunNo: 27081					
Prep Date:			Analysis Date: 6/25/2015		SeqNo: 809569		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Copper	0.48	0.0060	0.5000	0	96.4	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R27214			RunNo: 27214					
Prep Date:		Analysis Date: 7/1/2015			SeqNo: 815208		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R27214		RunNo: 27214					
Prep Date:			Analysis Date: 7/1/2015		SeqNo: 815209		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	101	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R27214		RunNo: 27214					
Prep Date:			Analysis Date: 7/1/2015		SeqNo: 815210		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0061	0.0060	0.006000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals						
Client ID:	PBW	Batch ID:	R27214	RunNo:	27214						
Prep Date:		Analysis Date:	7/1/2015	SeqNo:	815211	Units:	mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper		ND	0.0060								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals						
Client ID:	LCSW	Batch ID:	R27214	RunNo:	27214						
Prep Date:		Analysis Date:	7/1/2015	SeqNo:	815212	Units:	mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper		0.51	0.0060	0.5000	0	101	85	115			

Sample ID	LCSLL	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals						
Client ID:	BatchQC	Batch ID:	R27214	RunNo:	27214						
Prep Date:		Analysis Date:	7/1/2015	SeqNo:	815213	Units:	mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper		0.0082	0.0060	0.006000	0	138	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB-19841		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 19841		RunNo: 27010					
Prep Date:	6/19/2015		Analysis Date: 6/22/2015		SeqNo: 806989		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-19841		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 19841		RunNo: 27010					
Prep Date:	6/19/2015		Analysis Date: 6/22/2015		SeqNo: 806990		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.52	0.0020	0.5000	0	105	85	115			
Chromium	0.52	0.0060	0.5000	0	105	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.6	85	115			
Manganese	0.50	0.0020	0.5000	0	99.2	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Zinc	0.51	0.010	0.5000	0	103	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	1506567-002FMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	MKTF-30		Batch ID:	R27034		RunNo:	27034			
Prep Date:			Analysis Date:	6/23/2015		SeqNo:	807888		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.002580	97.6	70	130			
Lead	0.067	0.0025	0.06250	0.0005353	106	70	130			
Selenium	0.12	0.0050	0.1250	0.006533	90.6	70	130			
Uranium	0.10	0.0025	0.06250	0.03324	111	70	130			

Sample ID	1506567-002FMSD		SampType:	MSD		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	MKTF-30		Batch ID:	R27034		RunNo:	27034			
Prep Date:			Analysis Date:	6/23/2015		SeqNo:	807889		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.002580	98.2	70	130	0.636	20	
Lead	0.066	0.0025	0.06250	0.0005353	105	70	130	0.516	20	
Selenium	0.12	0.0050	0.1250	0.006533	90.2	70	130	0.378	20	
Uranium	0.10	0.0025	0.06250	0.03324	112	70	130	0.447	20	

Sample ID	1506567-008FMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	MKTF-40		Batch ID:	R27034		RunNo:	27034			
Prep Date:			Analysis Date:	6/23/2015		SeqNo:	807896		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003540	93.5	70	130			
Lead	0.068	0.0025	0.06250	0.0002902	109	70	130			
Selenium	0.11	0.0050	0.1250	0.009558	83.1	70	130			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R27034		RunNo:	27034			
Prep Date:			Analysis Date:	6/23/2015		SeqNo:	807912		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.6	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	96.9	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R27034		RunNo:	27034			
Prep Date:			Analysis Date:	6/23/2015		SeqNo:	807913		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R27034		RunNo: 27034					
Prep Date:			Analysis Date: 6/23/2015		SeqNo: 807913		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.7	85	115			
Uranium	0.012	0.00050	0.01250	0	100	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R27034		RunNo: 27034					
Prep Date:			Analysis Date: 6/23/2015		SeqNo: 807914		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	104	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R27034			RunNo: 27034					
Prep Date:		Analysis Date: 6/23/2015			SeqNo: 807916		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R27034			RunNo: 27034					
Prep Date:		Analysis Date: 6/23/2015			SeqNo: 807917		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R27034			RunNo: 27034					
Prep Date:		Analysis Date: 6/23/2015			SeqNo: 807918		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	LLLCS-19841		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 19841		RunNo: 27066					
Prep Date:	6/19/2015		Analysis Date: 6/24/2015		SeqNo: 808918		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.0	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.023	0.0010	0.02500	0	91.2	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID	MB-19841		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 19841		RunNo: 27066					
Prep Date:	6/19/2015		Analysis Date: 6/24/2015		SeqNo: 808920		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB-19842	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	19842	RunNo:	26997					
Prep Date:	6/19/2015	Analysis Date:	6/22/2015	SeqNo:	806448	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-19842	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	19842	RunNo:	26997					
Prep Date:	6/19/2015	Analysis Date:	6/22/2015	SeqNo:	806449	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB-19687		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 19687		RunNo: 26825					
Prep Date:	6/11/2015		Analysis Date: 6/15/2015		SeqNo: 800207		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		104	76.5	150			

Sample ID	LCS-19687		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 19687		RunNo: 26825					
Prep Date:	6/11/2015		Analysis Date: 6/15/2015		SeqNo: 800208		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.4	60.1	156			
Surr: DNOP	0.47		0.5000		94.1	76.5	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID B9	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R26838		RunNo: 26838							
Prep Date:	Analysis Date: 6/15/2015		SeqNo: 800551		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.4	57.8	137			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R26838		RunNo: 26838							
Prep Date:	Analysis Date: 6/15/2015		SeqNo: 800552		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	89.4	80	120			
Surr: BFB	19		20.00		96.4	57.8	137			

Sample ID 1506567-002BMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: MKTF-30	Batch ID: R26838		RunNo: 26838							
Prep Date:	Analysis Date: 6/15/2015		SeqNo: 800554		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.56	0.050	0.5000	0.07140	97.8	51	131			
Surr: BFB	20		20.00		101	57.8	137			

Sample ID 1506567-002BMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: MKTF-30	Batch ID: R26838		RunNo: 26838							
Prep Date:	Analysis Date: 6/15/2015		SeqNo: 800555		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0.07140	90.5	51	131	6.68	20	
Surr: BFB	20		20.00		99.7	57.8	137	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R26940	RunNo:	26940					
Prep Date:		Analysis Date:	6/18/2015	SeqNo:	804181	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R26940	RunNo:	26940					
Prep Date:		Analysis Date:	6/18/2015	SeqNo:	804181	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID	100nglcs200ngT2st	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R26940	RunNo:	26940					
Prep Date:		Analysis Date:	6/18/2015	SeqNo:	804189	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.5	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	100nglcs200ngT2st			SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R26940		RunNo:	26940				
Prep Date:			Analysis Date:	6/18/2015		SeqNo:	804189	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	20	1.0	20.00	0	101	75.6	144				
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130				
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.2	70	130				
Surr: 4-Bromofluorobenzene	9.9		10.00		99.2	70	130				
Surr: Dibromofluoromethane	9.1		10.00		91.4	70	130				
Surr: Toluene-d8	10		10.00		103	70	130				

Sample ID	rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R26940			RunNo: 26940					
Prep Date:		Analysis Date: 6/18/2015			SeqNo: 804328		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R26940			RunNo: 26940					
Prep Date:		Analysis Date: 6/18/2015			SeqNo: 804328	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R26940			RunNo: 26940						
Prep Date:	Analysis Date: 6/18/2015			SeqNo: 804328		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R26940			RunNo: 26940						
Prep Date:	Analysis Date: 6/18/2015			SeqNo: 804330		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.3	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.1	75.6	144			
Trichloroethene (TCE)	17	1.0	20.00	0	85.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID 1506567-003a ms2	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-29	Batch ID: R26940			RunNo: 26940						
Prep Date:	Analysis Date: 6/19/2015			SeqNo: 804338		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.3	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.9	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID 1506567-003a msd2	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-29	Batch ID: R26940			RunNo: 26940						
Prep Date:	Analysis Date: 6/19/2015			SeqNo: 804339		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130	5.78	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	1506567-003a msd2			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	MKTF-29		Batch ID:	R26940		RunNo:	26940				
Prep Date:			Analysis Date:	6/19/2015		SeqNo:	804339	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Toluene	21	1.0	20.00	0	105	70	130	4.55	20		
Chlorobenzene	21	1.0	20.00	0	105	70	130	3.40	20		
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130	6.07	20		
Trichloroethene (TCE)	20	1.0	20.00	0	97.9	70	130	6.17	20		
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.3	70	130	0	0		
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0		
Surr: Dibromofluoromethane	9.9		10.00		99.0	70	130	0	0		
Surr: Toluene-d8	11		10.00		107	70	130	0	0		

Sample ID	rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R26968			RunNo: 26968					
Prep Date:		Analysis Date: 6/19/2015			SeqNo: 805239		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R26968	RunNo:	26968					
Prep Date:		Analysis Date:	6/19/2015	SeqNo:	805239	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb1		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R26968		RunNo:	26968			
Prep Date:			Analysis Date:	6/19/2015		SeqNo:	805239	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.4	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100nglcs200ngT2st		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R26968		RunNo:	26968			
Prep Date:			Analysis Date:	6/19/2015		SeqNo:	805243	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.7	70	130			
Toluene	19	1.0	20.00	0	96.6	70	130			
Chlorobenzene	19	1.0	20.00	0	95.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.2	75.6	144			
Trichloroethene (TCE)	18	1.0	20.00	0	91.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.2	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.2	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID	rb4		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R26968		RunNo:	26968			
Prep Date:			Analysis Date:	6/19/2015		SeqNo:	805418	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb4	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R26968	RunNo:	26968					
Prep Date:		Analysis Date:	6/19/2015	SeqNo:	805418	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb4		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW		Batch ID: R26968		RunNo: 26968					
Prep Date:			Analysis Date: 6/19/2015		SeqNo: 805418		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.6	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.7	70	130			
Surr: Toluene-d8	9.7		10.00		96.8	70	130			

Sample ID	100ng lcs2		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R26968		RunNo: 26968					
Prep Date:			Analysis Date: 6/19/2015		SeqNo: 805419		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	116	75.6	144			
Trichloroethene (TCE)	19	1.0	20.00	0	94.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.2	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.7	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	mb-19714		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 19714		RunNo: 26853					
Prep Date:	6/15/2015		Analysis Date: 6/16/2015		SeqNo: 801386		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	mb-19714		SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID: 19714			RunNo: 26853				
Prep Date:	6/15/2015		Analysis Date: 6/16/2015			SeqNo: 801386	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	170		200.0		85.4	14.9	111			
Surr: Phenol-d5	180		200.0		89.8	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		99.6	15.7	154			
Surr: Nitrobenzene-d5	90		100.0		89.6	47.8	106			
Surr: 2-Fluorobiphenyl	89		100.0		89.3	21.3	123			
Surr: 4-Terphenyl-d14	120		100.0		122	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	lcs-19714		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 19714		RunNo: 26853					
Prep Date:	6/15/2015		Analysis Date: 6/16/2015		SeqNo: 801387		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	87	10	100.0	0	86.8	47.8	99.7			
4-Chloro-3-methylphenol	190	10	200.0	0	92.7	58.1	103			
2-Chlorophenol	180	10	200.0	0	88.0	49.5	96.8			
1,4-Dichlorobenzene	86	10	100.0	0	86.4	40.4	89.4			
2,4-Dinitrotoluene	72	10	100.0	0	72.3	38.6	91.3			
N-Nitrosodi-n-propylamine	92	10	100.0	0	91.6	53.9	95.6			
4-Nitrophenol	150	10	200.0	0	77.0	26.4	108			
Pentachlorophenol	150	20	200.0	0	75.3	36.5	86.6			
Phenol	170	10	200.0	0	84.8	29.3	108			
Pyrene	110	10	100.0	0	108	45.7	100			S
1,2,4-Trichlorobenzene	88	10	100.0	0	88.3	39.3	94.5			
Surr: 2-Fluorophenol	170		200.0		83.1	14.9	111			
Surr: Phenol-d5	190		200.0		97.1	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		99.3	15.7	154			
Surr: Nitrobenzene-d5	88		100.0		87.9	47.8	106			
Surr: 2-Fluorobiphenyl	91		100.0		91.0	21.3	123			
Surr: 4-Terphenyl-d14	94		100.0		93.7	14.3	135			

Sample ID	lcsd-19714		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 19714		RunNo: 26853					
Prep Date:	6/15/2015		Analysis Date: 6/16/2015		SeqNo: 801388		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	79.0	47.8	99.7	9.34	28.2	
4-Chloro-3-methylphenol	180	10	200.0	0	90.0	58.1	103	2.97	24.4	
2-Chlorophenol	150	10	200.0	0	76.3	49.5	96.8	14.3	28.1	
1,4-Dichlorobenzene	76	10	100.0	0	76.2	40.4	89.4	12.6	31.2	
2,4-Dinitrotoluene	69	10	100.0	0	69.3	38.6	91.3	4.26	44.4	
N-Nitrosodi-n-propylamine	84	10	100.0	0	83.8	53.9	95.6	8.80	24.2	
4-Nitrophenol	140	10	200.0	0	71.5	26.4	108	7.53	36.6	
Pentachlorophenol	150	20	200.0	0	72.7	36.5	86.6	3.54	29.5	
Phenol	150	10	200.0	0	77.2	29.3	108	9.41	30	
Pyrene	98	10	100.0	0	97.9	45.7	100	9.92	31	
1,2,4-Trichlorobenzene	93	10	100.0	0	92.8	39.3	94.5	4.90	24	
Surr: 2-Fluorophenol	150		200.0		77.2	14.9	111	0	0	
Surr: Phenol-d5	170		200.0		84.6	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	200		200.0		101	15.7	154	0	0	
Surr: Nitrobenzene-d5	89		100.0		88.8	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	81		100.0		80.7	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	lcsd-19714		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 19714		RunNo: 26853					
Prep Date:	6/15/2015		Analysis Date: 6/16/2015		SeqNo: 801388		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	85		100.0		84.6	14.3	135	0	0	

Sample ID	mb-19773		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 19773		RunNo: 26902					
Prep Date:	6/17/2015		Analysis Date: 6/17/2015		SeqNo: 803101		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Acenaphthene	ND	10
Acenaphthylene	ND	10
Aniline	ND	10
Anthracene	ND	10
Azobenzene	ND	10
Benz(a)anthracene	ND	10
Benzo(a)pyrene	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(g,h,i)perylene	ND	10
Benzo(k)fluoranthene	ND	10
Benzoic acid	ND	20
Benzyl alcohol	ND	10
Bis(2-chloroethoxy)methane	ND	10
Bis(2-chloroethyl)ether	ND	10
Bis(2-chloroisopropyl)ether	ND	10
Bis(2-ethylhexyl)phthalate	ND	10
4-Bromophenyl phenyl ether	ND	10
Butyl benzyl phthalate	ND	10
Carbazole	ND	10
4-Chloro-3-methylphenol	ND	10
4-Chloroaniline	ND	10
2-Chloronaphthalene	ND	10
2-Chlorophenol	ND	10
4-Chlorophenyl phenyl ether	ND	10
Chrysene	ND	10
Di-n-butyl phthalate	ND	10
Di-n-octyl phthalate	ND	10
Dibenz(a,h)anthracene	ND	10
Dibenzofuran	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	mb-19773		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 19773		RunNo: 26902					
Prep Date:	6/17/2015		Analysis Date: 6/17/2015		SeqNo: 803101		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506567

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	mb-19773		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 19773		RunNo: 26902					
Prep Date:	6/17/2015		Analysis Date: 6/17/2015		SeqNo: 803101		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	120		200.0		57.8	14.9	111			
Surr: Phenol-d5	79		200.0		39.6	11.3	108			
Surr: 2,4,6-Tribromophenol	180		200.0		91.0	15.7	154			
Surr: Nitrobenzene-d5	79		100.0		78.7	47.8	106			
Surr: 2-Fluorobiphenyl	81		100.0		80.6	21.3	123			
Surr: 4-Terphenyl-d14	93		100.0		92.7	14.3	135			

Sample ID	lcs-19773		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 19773		RunNo: 26902					
Prep Date:	6/17/2015		Analysis Date: 6/17/2015		SeqNo: 803103		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	76.2	47.8	99.7			
4-Chloro-3-methylphenol	160	10	200.0	0	78.3	58.1	103			
2-Chlorophenol	130	10	200.0	0	64.4	49.5	96.8			
1,4-Dichlorobenzene	53	10	100.0	0	52.7	40.4	89.4			
2,4-Dinitrotoluene	74	10	100.0	0	73.6	38.6	91.3			
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.2	53.9	95.6			
4-Nitrophenol	98	10	200.0	0	48.9	26.4	108			
Pentachlorophenol	140	20	200.0	0	70.9	36.5	86.6			
Phenol	80	10	200.0	0	40.2	29.3	108			
Pyrene	100	10	100.0	0	99.6	45.7	100			
1,2,4-Trichlorobenzene	62	10	100.0	0	61.9	39.3	94.5			
Surr: 2-Fluorophenol	94		200.0		47.2	14.9	111			
Surr: Phenol-d5	72		200.0		35.9	11.3	108			
Surr: 2,4,6-Tribromophenol	170		200.0		87.2	15.7	154			
Surr: Nitrobenzene-d5	64		100.0		64.4	47.8	106			
Surr: 2-Fluorobiphenyl	70		100.0		69.6	21.3	123			
Surr: 4-Terphenyl-d14	98		100.0		98.1	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1506567**

RcptNo: 1

Received by/date:

AT

06/11/15

Logged By: **Lindsay Mangin**

6/11/2015 12:10:00 PM

Lindsay Mangin

Completed By: **Lindsay Mangin**

6/11/2015 1:52:55 PM

Lindsay Mangin

Reviewed By:

Ja

06/12/15

Chain of Custody

1. Custody seals intact on sample bottles?
2. Is Chain of Custody complete?
3. How was the sample delivered?

Yes ☒

No ☐

Not Present ☐

Yes ☒

No ☐

Not Present ☐

Client

Log In

4. Was an attempt made to cool the samples?
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?
6. Sample(s) in proper container(s)?
7. Sufficient sample volume for indicated test(s)?
8. Are samples (except VOA and ONG) properly preserved?
9. Was preservative added to bottles?
10. VOA vials have zero headspace?
11. Were any sample containers received broken?
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody?
14. Is it clear what analyses were requested?
15. Were all holding times able to be met?
(If no, notify customer for authorization.)

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☒

Yes ☒

No ☒

NA ☐

Yes ☒

No ☐

No VOA Vials ☐

Yes ☐

No ☒

of preserved bottles checked for pH:

Yes ☒

No ☐

Adjusted? ☒

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Checked by: *Ja*

- FOR DISSOLVED METALS ANALYSIS: ADDED 0.4 mL TO - 0.0 L F FOR ACCEPTABLE pH. HELD IN LOG IN FOR 24 HOURS AFTER PRESERVATION

06/12/15 @ 0930

24

or >12 unless noted

YES

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

Email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

2015 2nd QTR (MKTF)

PO #20825205

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 10

Container Type and #

Preservative Type

HEAL No.

1506864

3-40ML VOA

HCL

-001

MISC

MISC

-002

MISC

MISC

-003

MISC

MISC

-004

MISC

MISC

-005

MISC

MISC

-006

MISC

MISC

-007

MISC

MISC

-008

MISC

MISC

-009

MISC

MISC

-010

MISC

MISC

-011

MISC

MISC

-012

MISC

MISC

-013

MISC

MISC

-014

MISC

MISC

-015

MISC

MISC

-016

MISC

MISC

-017

MISC

MISC

-018

MISC

MISC

-019

MISC

MISC

-020

MISC

MISC

-021

MISC

MISC

-022

MISC

MISC

-023

MISC

MISC

-024

MISC

MISC

-025

MISC

MISC

-026

MISC

MISC

-027

MISC

MISC

-028

MISC

MISC

-029

MISC

MISC

-030

MISC

MISC

-031

MISC

MISC

-032

MISC

MISC

-033

MISC

MISC

-034

MISC

MISC

-035

MISC

MISC

-036

MISC

MISC

-037

MISC

MISC

-038

MISC

MISC

-039

MISC

MISC

-040

MISC

MISC

-041

MISC

MISC

-042

MISC

MISC

-043

MISC

MISC

-044

MISC

MISC

-045

MISC

MISC

-046

MISC

MISC

-047

MISC

MISC

-048

MISC

MISC

-049

MISC

MISC

-050

MISC

MISC

-051

MISC

MISC

-052

MISC

MISC

-053

MISC

MISC

-054

MISC

MISC

-055

MISC

MISC

-056

MISC

MISC

-057

MISC

MISC

-058

MISC

MISC

-059

MISC

MISC

-060

MISC

MISC

-061

MISC

MISC

-062

MISC

MISC

-063

MISC

MISC

-064

MISC

MISC

-065

MISC

MISC

-066

MISC

MISC

-067

MISC

MISC

-068

MISC

MISC

-069

MISC

MISC

-070

MISC

MISC

-071

MISC

MISC

-072

MISC

MISC

-073

MISC

MISC

-074

MISC

MISC

-075

MISC

MISC

-076

MISC

MISC

-077

MISC

MISC

-078

MISC

MISC

-079

MISC

MISC

-080

MISC

MISC

-081

MISC

MISC

-082

MISC

MISC

-083

MISC

MISC

-084

MISC

MISC

-085

MISC

MISC

-086

MISC

MISC

-087

MISC

MISC

-088

MISC

MISC

-089

MISC

MISC

-090

MISC

MISC

-091

MISC

MISC

-092

MISC

MISC

-093

MISC

MISC

-094

MISC

MISC

-095

MISC

MISC

-096

MISC



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 07, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 2nd QTR (MKTF)

OrderNo.: 1506604

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 6/11/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 1:00:00 PM

Lab ID: 1506604-001

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Toluene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Naphthalene	ND	2.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Acetone	ND	10		µg/L	1	6/18/2015 6:24:40 PM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Bromoform	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Bromomethane	ND	3.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
2-Butanone	ND	10		µg/L	1	6/18/2015 6:24:40 PM	R26940
Carbon disulfide	ND	10		µg/L	1	6/18/2015 6:24:40 PM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Chloroethane	ND	2.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Chloroform	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Chloromethane	ND	3.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,1-Dichloroethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/18/2015 6:24:40 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 42
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 1:00:00 PM

Lab ID: 1506604-001

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
2-Hexanone	ND	10		µg/L	1	6/18/2015 6:24:40 PM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/18/2015 6:24:40 PM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Styrene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/18/2015 6:24:40 PM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/18/2015 6:24:40 PM	R26940
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	1	6/18/2015 6:24:40 PM	R26940
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/18/2015 6:24:40 PM	R26940
Surr: Dibromofluoromethane	95.2	70-130		%REC	1	6/18/2015 6:24:40 PM	R26940
Surr: Toluene-d8	95.8	70-130		%REC	1	6/18/2015 6:24:40 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:00:00 PM

Lab ID: 1506604-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/25/2015 1:51:34 PM	R27089
Lead	ND	0.0050		mg/L	5	6/25/2015 1:51:34 PM	R27089
Selenium	0.0056	0.0050		mg/L	5	6/25/2015 1:51:34 PM	R27089
Uranium	ND	0.0050		mg/L	5	6/25/2015 1:51:34 PM	R27089
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	2.3	0.020	*	mg/L	10	6/23/2015 3:19:35 PM	R27027
Cadmium	ND	0.0020		mg/L	1	6/22/2015 6:01:26 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 6:01:26 PM	R27010
Copper	ND	0.0060		mg/L	1	6/23/2015 3:17:41 PM	R27027
Iron	4.7	0.20	*	mg/L	10	6/23/2015 3:19:35 PM	R27027
Manganese	2.1	0.020	*	mg/L	10	6/23/2015 3:19:35 PM	R27027
Silver	ND	0.0050		mg/L	1	6/22/2015 6:01:26 PM	R27010
Zinc	ND	0.010		mg/L	1	6/22/2015 6:01:26 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.4	0.020	*	mg/L	10	6/23/2015 2:24:19 PM	19861
Cadmium	ND	0.0020		mg/L	1	6/23/2015 1:45:34 PM	19861
Chromium	0.0065	0.0060		mg/L	1	6/23/2015 1:45:34 PM	19861
Copper	ND	0.0060		mg/L	1	6/23/2015 1:45:34 PM	19861
Iron	8.1	0.20	*	mg/L	10	6/23/2015 2:24:19 PM	19861
Manganese	2.2	0.020	*	mg/L	10	6/23/2015 2:24:19 PM	19861
Silver	ND	0.0050		mg/L	1	6/23/2015 1:45:34 PM	19861
Zinc	0.015	0.010		mg/L	1	6/23/2015 1:45:34 PM	19861
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0034	0.0010		mg/L	1	6/24/2015 2:23:37 PM	19861
Lead	0.0042	0.00050		mg/L	1	6/24/2015 2:23:37 PM	19861
Selenium	0.0045	0.0010		mg/L	1	6/24/2015 2:23:37 PM	19861
Uranium	ND	0.00050		mg/L	1	6/24/2015 2:23:37 PM	19861
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 3:17:27 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	110	10		mg/L	10	6/16/2015 9:22:36 AM	19687
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	6/16/2015 9:22:36 AM	19687
Surr: DNOP	0	76.5-150	S	%REC	10	6/16/2015 9:22:36 AM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	31	2.5		mg/L	50	6/15/2015 4:45:51 PM	R26838
Surr: BFB	100	57.8-137		%REC	50	6/15/2015 4:45:51 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:00:00 PM

Lab ID: 1506604-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 6:50:29 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 6:50:29 PM	19714
2,4-Dimethylphenol	80	10		µg/L	1	6/16/2015 6:50:29 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 6:50:29 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 6:50:29 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 42
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:00:00 PM

Lab ID: 1506604-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
1-Methylnaphthalene	340	50		µg/L	5	6/17/2015 1:19:50 PM	19714
2-Methylnaphthalene	160	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2-Methylphenol	76	10		µg/L	1	6/16/2015 6:50:29 PM	19714
3+4-Methylphenol	50	10		µg/L	1	6/16/2015 6:50:29 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Naphthalene	190	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 6:50:29 PM	19714
Phenanthrene	22	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Phenol	31	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 6:50:29 PM	19714
Surr: 2-Fluorophenol	44.1	14.9-111		%REC	1	6/16/2015 6:50:29 PM	19714
Surr: Phenol-d5	52.6	11.3-108		%REC	1	6/16/2015 6:50:29 PM	19714
Surr: 2,4,6-Tribromophenol	77.4	15.7-154		%REC	1	6/16/2015 6:50:29 PM	19714
Surr: Nitrobenzene-d5	0	47.8-106	S	%REC	1	6/16/2015 6:50:29 PM	19714
Surr: 2-Fluorobiphenyl	81.4	21.3-123		%REC	1	6/16/2015 6:50:29 PM	19714
Surr: 4-Terphenyl-d14	96.5	14.3-135		%REC	1	6/16/2015 6:50:29 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 42
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:00:00 PM

Lab ID: 1506604-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	9300	500		µg/L	500	6/18/2015 6:52:27 PM	R26940
Toluene	1500	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Ethylbenzene	740	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Methyl tert-butyl ether (MTBE)	410	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2,4-Trimethylbenzene	670	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,3,5-Trimethylbenzene	130	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Naphthalene	ND	100		µg/L	50	6/18/2015 7:20:12 PM	R26940
1-Methylnaphthalene	ND	200		µg/L	50	6/18/2015 7:20:12 PM	R26940
2-Methylnaphthalene	ND	200		µg/L	50	6/18/2015 7:20:12 PM	R26940
Acetone	ND	500		µg/L	50	6/18/2015 7:20:12 PM	R26940
Bromobenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Bromodichloromethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Bromoform	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Bromomethane	ND	150		µg/L	50	6/18/2015 7:20:12 PM	R26940
2-Butanone	ND	500		µg/L	50	6/18/2015 7:20:12 PM	R26940
Carbon disulfide	ND	500		µg/L	50	6/18/2015 7:20:12 PM	R26940
Carbon Tetrachloride	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Chlorobenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Chloroethane	ND	100		µg/L	50	6/18/2015 7:20:12 PM	R26940
Chloroform	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Chloromethane	ND	150		µg/L	50	6/18/2015 7:20:12 PM	R26940
2-Chlorotoluene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
4-Chlorotoluene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
cis-1,2-DCE	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
cis-1,3-Dichloropropene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	6/18/2015 7:20:12 PM	R26940
Dibromochloromethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Dibromomethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2-Dichlorobenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,3-Dichlorobenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,4-Dichlorobenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Dichlorodifluoromethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,1-Dichloroethane	56	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,1-Dichloroethene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2-Dichloropropane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,3-Dichloropropane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
2,2-Dichloropropane	ND	100		µg/L	50	6/18/2015 7:20:12 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 42
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:00:00 PM

Lab ID: 1506604-002

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Hexachlorobutadiene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
2-Hexanone	ND	500		µg/L	50	6/18/2015 7:20:12 PM	R26940
Isopropylbenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
4-Isopropyltoluene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
4-Methyl-2-pentanone	ND	500		µg/L	50	6/18/2015 7:20:12 PM	R26940
Methylene Chloride	ND	150		µg/L	50	6/18/2015 7:20:12 PM	R26940
n-Butylbenzene	ND	150		µg/L	50	6/18/2015 7:20:12 PM	R26940
n-Propylbenzene	110	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
sec-Butylbenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Styrene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
tert-Butylbenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	6/18/2015 7:20:12 PM	R26940
Tetrachloroethene (PCE)	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
trans-1,2-DCE	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
trans-1,3-Dichloropropene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2,3-Trichlorobenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2,4-Trichlorobenzene	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,1,1-Trichloroethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,1,2-Trichloroethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Trichloroethene (TCE)	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Trichlorofluoromethane	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
1,2,3-Trichloropropane	ND	100		µg/L	50	6/18/2015 7:20:12 PM	R26940
Vinyl chloride	ND	50		µg/L	50	6/18/2015 7:20:12 PM	R26940
Xylenes, Total	1800	75		µg/L	50	6/18/2015 7:20:12 PM	R26940
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%REC	50	6/18/2015 7:20:12 PM	R26940
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	50	6/18/2015 7:20:12 PM	R26940
Surr: Dibromofluoromethane	96.3	70-130		%REC	50	6/18/2015 7:20:12 PM	R26940
Surr: Toluene-d8	98.4	70-130		%REC	50	6/18/2015 7:20:12 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:45:00 PM

Lab ID: 1506604-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/25/2015 1:54:38 PM	R27089
Lead	ND	0.0050		mg/L	5	6/25/2015 1:54:38 PM	R27089
Selenium	ND	0.0050		mg/L	5	6/25/2015 1:54:38 PM	R27089
Uranium	0.032	0.0050	*	mg/L	5	6/25/2015 1:54:38 PM	R27089
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.12	0.0020		mg/L	1	6/22/2015 6:03:14 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 6:03:14 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 6:03:14 PM	R27010
Copper	ND	0.0060		mg/L	1	6/23/2015 3:27:36 PM	R27027
Iron	0.21	0.020		mg/L	1	6/22/2015 6:03:14 PM	R27010
Manganese	0.56	0.0020	*	mg/L	1	6/22/2015 6:03:14 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 6:03:14 PM	R27010
Zinc	ND	0.010		mg/L	1	6/22/2015 6:03:14 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.14	0.0020		mg/L	1	6/23/2015 1:47:30 PM	19861
Cadmium	ND	0.0020		mg/L	1	6/23/2015 1:47:30 PM	19861
Chromium	ND	0.0060		mg/L	1	6/23/2015 1:47:30 PM	19861
Copper	ND	0.0060		mg/L	1	6/23/2015 1:47:30 PM	19861
Iron	1.6	0.10	*	mg/L	5	6/23/2015 2:33:56 PM	19861
Manganese	0.55	0.0020	*	mg/L	1	6/23/2015 1:47:30 PM	19861
Silver	ND	0.0050		mg/L	1	6/23/2015 1:47:30 PM	19861
Zinc	ND	0.010		mg/L	1	6/23/2015 1:47:30 PM	19861
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0035	0.0010		mg/L	1	6/24/2015 2:26:20 PM	19861
Lead	0.0023	0.00050		mg/L	1	6/24/2015 2:26:20 PM	19861
Selenium	0.0028	0.0010		mg/L	1	6/24/2015 2:26:20 PM	19861
Uranium	0.032	0.0025	*	mg/L	5	6/24/2015 3:51:46 PM	19861
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 3:19:30 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 6:58:30 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 6:58:30 PM	19687
Surr: DNOP	97.1	76.5-150		%REC	1	6/15/2015 6:58:30 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3.5	0.050		mg/L	1	6/15/2015 5:36:27 PM	R26838
Surr: BFB	160	57.8-137	S	%REC	1	6/15/2015 5:36:27 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:45:00 PM

Lab ID: 1506604-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 7:18:29 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 7:18:29 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 7:18:29 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 7:18:29 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:45:00 PM

Lab ID: 1506604-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 7:18:29 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 7:18:29 PM	19714
Surr: 2-Fluorophenol	73.0	14.9-111		%REC	1	6/16/2015 7:18:29 PM	19714
Surr: Phenol-d5	64.6	11.3-108		%REC	1	6/16/2015 7:18:29 PM	19714
Surr: 2,4,6-Tribromophenol	111	15.7-154		%REC	1	6/16/2015 7:18:29 PM	19714
Surr: Nitrobenzene-d5	86.6	47.8-106		%REC	1	6/16/2015 7:18:29 PM	19714
Surr: 2-Fluorobiphenyl	100	21.3-123		%REC	1	6/16/2015 7:18:29 PM	19714
Surr: 4-Terphenyl-d14	100	14.3-135		%REC	1	6/16/2015 7:18:29 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:45:00 PM

Lab ID: 1506604-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
Benzene	470	10		µg/L	10	6/18/2015 7:47:53 PM	R26940
Toluene	11	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Ethylbenzene	62	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Methyl tert-butyl ether (MTBE)	37	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2,4-Trimethylbenzene	40	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2-Dichloroethane (EDC)	4.1	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Naphthalene	6.6	2.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1-Methylnaphthalene	5.8	4.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Acetone	ND	10		µg/L	1	6/18/2015 8:15:35 PM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Bromoform	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Bromomethane	ND	3.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
2-Butanone	ND	10		µg/L	1	6/18/2015 8:15:35 PM	R26940
Carbon disulfide	ND	10		µg/L	1	6/18/2015 8:15:35 PM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Chloroethane	ND	2.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Chloroform	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Chloromethane	ND	3.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
cis-1,2-DCE	9.9	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,1-Dichloroethane	54	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,1-Dichloroethene	26	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/18/2015 8:15:35 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 2:45:00 PM

Lab ID: 1506604-003

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
2-Hexanone	ND	10		µg/L	1	6/18/2015 8:15:35 PM	R26940
Isopropylbenzene	9.4	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/18/2015 8:15:35 PM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
n-Butylbenzene	3.2	3.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
n-Propylbenzene	29	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
sec-Butylbenzene	1.7	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Styrene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Trichloroethene (TCE)	2.5	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Vinyl chloride	1.4	1.0		µg/L	1	6/18/2015 8:15:35 PM	R26940
Xylenes, Total	39	1.5		µg/L	1	6/18/2015 8:15:35 PM	R26940
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%REC	1	6/18/2015 8:15:35 PM	R26940
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	6/18/2015 8:15:35 PM	R26940
Surr: Dibromofluoromethane	94.3	70-130		%REC	1	6/18/2015 8:15:35 PM	R26940
Surr: Toluene-d8	98.3	70-130		%REC	1	6/18/2015 8:15:35 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:16:00 PM

Lab ID: 1506604-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/25/2015 1:57:41 PM	R27089
Lead	ND	0.0050		mg/L	5	6/25/2015 1:57:41 PM	R27089
Selenium	0.0075	0.0050		mg/L	5	6/25/2015 1:57:41 PM	R27089
Uranium	0.067	0.0050	*	mg/L	5	6/25/2015 1:57:41 PM	R27089
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.083	0.0020		mg/L	1	6/22/2015 6:05:36 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 6:05:36 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 6:05:36 PM	R27010
Copper	ND	0.0060		mg/L	1	6/23/2015 3:29:47 PM	R27027
Iron	0.56	0.020	*	mg/L	1	6/22/2015 6:05:36 PM	R27010
Manganese	0.35	0.0020	*	mg/L	1	6/22/2015 6:05:36 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 6:05:36 PM	R27010
Zinc	0.010	0.010		mg/L	1	6/22/2015 6:05:36 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	6/23/2015 1:49:35 PM	19861
Cadmium	ND	0.0020		mg/L	1	6/23/2015 1:49:35 PM	19861
Chromium	ND	0.0060		mg/L	1	6/23/2015 1:49:35 PM	19861
Copper	ND	0.0060		mg/L	1	6/23/2015 1:49:35 PM	19861
Iron	4.1	0.20	*	mg/L	10	6/23/2015 2:35:57 PM	19861
Manganese	0.58	0.0020	*	mg/L	1	6/23/2015 1:49:35 PM	19861
Silver	ND	0.0050		mg/L	1	6/23/2015 1:49:35 PM	19861
Zinc	0.023	0.010		mg/L	1	6/23/2015 1:49:35 PM	19861
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/24/2015 4:00:00 PM	19861
Lead	ND	0.0050		mg/L	10	6/24/2015 4:00:00 PM	19861
Selenium	ND	0.010		mg/L	10	6/24/2015 4:00:00 PM	19861
Uranium	0.067	0.0050	*	mg/L	10	6/24/2015 4:00:00 PM	19861
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 3:21:33 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 7:19:41 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 7:19:41 PM	19687
Surr: DNOP	111	76.5-150		%REC	1	6/15/2015 7:19:41 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/15/2015 6:26:40 PM	R26838
Surr: BFB	89.4	57.8-137		%REC	1	6/15/2015 6:26:40 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:16:00 PM

Lab ID: 1506604-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 7:47:01 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 7:47:01 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 7:47:01 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 7:47:01 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:16:00 PM

Lab ID: 1506604-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 7:47:01 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 7:47:01 PM	19714
Surr: 2-Fluorophenol	61.9	14.9-111		%REC	1	6/16/2015 7:47:01 PM	19714
Surr: Phenol-d5	61.2	11.3-108		%REC	1	6/16/2015 7:47:01 PM	19714
Surr: 2,4,6-Tribromophenol	96.9	15.7-154		%REC	1	6/16/2015 7:47:01 PM	19714
Surr: Nitrobenzene-d5	82.6	47.8-106		%REC	1	6/16/2015 7:47:01 PM	19714
Surr: 2-Fluorobiphenyl	91.1	21.3-123		%REC	1	6/16/2015 7:47:01 PM	19714
Surr: 4-Terphenyl-d14	92.2	14.3-135		%REC	1	6/16/2015 7:47:01 PM	19714

EPA METHOD 8260B: VOLATILESAnalyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 15 of 42
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:16:00 PM

Lab ID: 1506604-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Toluene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Methyl tert-butyl ether (MTBE)	34	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Naphthalene	ND	2.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Acetone	ND	10		µg/L	1	6/18/2015 8:43:17 PM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Bromoform	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Bromomethane	ND	3.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
2-Butanone	ND	10		µg/L	1	6/18/2015 8:43:17 PM	R26940
Carbon disulfide	ND	10		µg/L	1	6/18/2015 8:43:17 PM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Chloroethane	ND	2.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Chloroform	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Chloromethane	ND	3.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,1-Dichloroethane	2.0	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/18/2015 8:43:17 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:16:00 PM

Lab ID: 1506604-004

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
2-Hexanone	ND	10		µg/L	1	6/18/2015 8:43:17 PM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/18/2015 8:43:17 PM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Styrene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/18/2015 8:43:17 PM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/18/2015 8:43:17 PM	R26940
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%REC	1	6/18/2015 8:43:17 PM	R26940
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	6/18/2015 8:43:17 PM	R26940
Surr: Dibromofluoromethane	95.4	70-130		%REC	1	6/18/2015 8:43:17 PM	R26940
Surr: Toluene-d8	100	70-130		%REC	1	6/18/2015 8:43:17 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:50:00 PM

Lab ID: 1506604-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/25/2015 2:00:44 PM	R27089
Lead	ND	0.0050		mg/L	5	6/25/2015 2:00:44 PM	R27089
Selenium	0.012	0.0050		mg/L	5	6/25/2015 2:00:44 PM	R27089
Uranium	0.16	0.010	*	mg/L	10	6/25/2015 4:43:09 PM	R27089
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.087	0.0020		mg/L	1	6/22/2015 6:07:38 PM	R27010
Cadmium	ND	0.0020		mg/L	1	6/22/2015 6:07:38 PM	R27010
Chromium	ND	0.0060		mg/L	1	6/22/2015 6:07:38 PM	R27010
Copper	ND	0.0060		mg/L	1	6/23/2015 3:31:54 PM	R27027
Iron	0.062	0.020		mg/L	1	6/22/2015 6:07:38 PM	R27010
Manganese	0.0054	0.0020		mg/L	1	6/22/2015 6:07:38 PM	R27010
Silver	ND	0.0050		mg/L	1	6/22/2015 6:07:38 PM	R27010
Zinc	0.031	0.010		mg/L	1	6/22/2015 6:07:38 PM	R27010
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.19	0.0020		mg/L	1	6/23/2015 1:51:35 PM	19861
Cadmium	ND	0.0020		mg/L	1	6/23/2015 1:51:35 PM	19861
Chromium	0.0064	0.0060		mg/L	1	6/23/2015 1:51:35 PM	19861
Copper	ND	0.0060		mg/L	1	6/23/2015 1:51:35 PM	19861
Iron	5.2	0.20	*	mg/L	10	6/23/2015 2:37:57 PM	19861
Manganese	0.20	0.0020	*	mg/L	1	6/23/2015 1:51:35 PM	19861
Silver	ND	0.0050		mg/L	1	6/23/2015 1:51:35 PM	19861
Zinc	0.022	0.010		mg/L	1	6/23/2015 1:51:35 PM	19861
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/24/2015 4:02:43 PM	19861
Lead	0.0051	0.00050		mg/L	1	6/24/2015 2:37:18 PM	19861
Selenium	ND	0.010		mg/L	10	6/24/2015 4:02:43 PM	19861
Uranium	0.16	0.0050	*	mg/L	10	6/24/2015 4:02:43 PM	19861
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	6/22/2015 3:23:37 PM	19842
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/15/2015 7:41:06 PM	19687
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2015 7:41:06 PM	19687
Surr: DNOP	107	76.5-150		%REC	1	6/15/2015 7:41:06 PM	19687
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/15/2015 6:51:48 PM	R26838
Surr: BFB	89.9	57.8-137		%REC	1	6/15/2015 6:51:48 PM	R26838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:50:00 PM

Lab ID: 1506604-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
Acenaphthene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 8:15:33 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 8:15:33 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 8:15:33 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 8:15:33 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:50:00 PM

Lab ID: 1506604-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 8:15:33 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 8:15:33 PM	19714
Surr: 2-Fluorophenol	47.1	14.9-111		%REC	1	6/16/2015 8:15:33 PM	19714
Surr: Phenol-d5	41.1	11.3-108		%REC	1	6/16/2015 8:15:33 PM	19714
Surr: 2,4,6-Tribromophenol	67.8	15.7-154		%REC	1	6/16/2015 8:15:33 PM	19714
Surr: Nitrobenzene-d5	63.1	47.8-106		%REC	1	6/16/2015 8:15:33 PM	19714
Surr: 2-Fluorobiphenyl	60.4	21.3-123		%REC	1	6/16/2015 8:15:33 PM	19714
Surr: 4-Terphenyl-d14	121	14.3-135		%REC	1	6/16/2015 8:15:33 PM	19714

EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:50:00 PM

Lab ID: 1506604-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Toluene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Naphthalene	ND	2.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Acetone	ND	10		µg/L	1	6/18/2015 9:11:02 PM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Bromoform	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Bromomethane	ND	3.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
2-Butanone	ND	10		µg/L	1	6/18/2015 9:11:02 PM	R26940
Carbon disulfide	ND	10		µg/L	1	6/18/2015 9:11:02 PM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Chloroethane	ND	2.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Chloroform	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Chloromethane	ND	3.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,1-Dichloroethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/18/2015 9:11:02 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015 3:50:00 PM

Lab ID: 1506604-005

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
2-Hexanone	ND	10		µg/L	1	6/18/2015 9:11:02 PM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/18/2015 9:11:02 PM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Styrene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/18/2015 9:11:02 PM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/18/2015 9:11:02 PM	R26940
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	6/18/2015 9:11:02 PM	R26940
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	6/18/2015 9:11:02 PM	R26940
Surr: Dibromofluoromethane	94.9	70-130		%REC	1	6/18/2015 9:11:02 PM	R26940
Surr: Toluene-d8	99.9	70-130		%REC	1	6/18/2015 9:11:02 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015

Lab ID: 1506604-006

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
Acenaphthene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Acenaphthylene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Aniline	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Anthracene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Azobenzene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Benz(a)anthracene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Benzo(a)pyrene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Benzo(b)fluoranthene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Benzo(k)fluoranthene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Benzoic acid	ND	20		µg/L	1	6/16/2015 8:44:11 PM	19714
Benzyl alcohol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Butyl benzyl phthalate	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Carbazole	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
4-Chloroaniline	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2-Chloronaphthalene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2-Chlorophenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Chrysene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Di-n-butyl phthalate	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Di-n-octyl phthalate	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Dibenzofuran	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
1,2-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
1,3-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
1,4-Dichlorobenzene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Diethyl phthalate	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Dimethyl phthalate	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2,4-Dichlorophenol	ND	20		µg/L	1	6/16/2015 8:44:11 PM	19714
2,4-Dimethylphenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/16/2015 8:44:11 PM	19714
2,4-Dinitrophenol	ND	20		µg/L	1	6/16/2015 8:44:11 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 2nd QTR (MKTF)

Collection Date: 6/9/2015

Lab ID: 1506604-006

Matrix: AQUEOUS

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2,6-Dinitrotoluene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Fluoranthene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Fluorene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Hexachlorobenzene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Hexachlorobutadiene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Hexachloroethane	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Isophorone	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
1-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2-Methylnaphthalene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2-Methylphenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
3+4-Methylphenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
N-Nitrosodimethylamine	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Naphthalene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2-Nitroaniline	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
3-Nitroaniline	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
4-Nitroaniline	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Nitrobenzene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2-Nitrophenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
4-Nitrophenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Pentachlorophenol	ND	20		µg/L	1	6/16/2015 8:44:11 PM	19714
Phenanthrene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Phenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Pyrene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Pyridine	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/16/2015 8:44:11 PM	19714
Surr: 2-Fluorophenol	84.6	14.9-111		%REC	1	6/16/2015 8:44:11 PM	19714
Surr: Phenol-d5	76.7	11.3-108		%REC	1	6/16/2015 8:44:11 PM	19714
Surr: 2,4,6-Tribromophenol	126	15.7-154		%REC	1	6/16/2015 8:44:11 PM	19714
Surr: Nitrobenzene-d5	110	47.8-106	S	%REC	1	6/16/2015 8:44:11 PM	19714
Surr: 2-Fluorobiphenyl	108	21.3-123		%REC	1	6/16/2015 8:44:11 PM	19714
Surr: 4-Terphenyl-d14	139	14.3-135	S	%REC	1	6/16/2015 8:44:11 PM	19714

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 2nd QTR (MKTF)

Collection Date:

Lab ID: 1506604-007

Matrix: TRIP BLANK

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Toluene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Ethylbenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Naphthalene	ND	2.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
2-Methylnaphthalene	ND	4.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Acetone	ND	10		µg/L	1	6/18/2015 11:57:09 PM	R26940
Bromobenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Bromodichloromethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Bromoform	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Bromomethane	ND	3.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
2-Butanone	ND	10		µg/L	1	6/18/2015 11:57:09 PM	R26940
Carbon disulfide	ND	10		µg/L	1	6/18/2015 11:57:09 PM	R26940
Carbon Tetrachloride	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Chlorobenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Chloroethane	ND	2.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Chloroform	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Chloromethane	ND	3.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
2-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
4-Chlorotoluene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
cis-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Dibromochloromethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Dibromomethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,1-Dichloroethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,1-Dichloroethene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,3-Dichloropropane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
2,2-Dichloropropane	ND	2.0		µg/L	1	6/18/2015 11:57:09 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506604

Date Reported: 7/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 2nd QTR (MKTF)

Collection Date:

Lab ID: 1506604-007

Matrix: TRIP BLANK

Received Date: 6/11/2015 12:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Hexachlorobutadiene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
2-Hexanone	ND	10		µg/L	1	6/18/2015 11:57:09 PM	R26940
Isopropylbenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
4-Isopropyltoluene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
4-Methyl-2-pentanone	ND	10		µg/L	1	6/18/2015 11:57:09 PM	R26940
Methylene Chloride	ND	3.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
n-Butylbenzene	ND	3.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
n-Propylbenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
sec-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Styrene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
tert-Butylbenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
trans-1,2-DCE	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Trichlorofluoromethane	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Vinyl chloride	ND	1.0		µg/L	1	6/18/2015 11:57:09 PM	R26940
Xylenes, Total	ND	1.5		µg/L	1	6/18/2015 11:57:09 PM	R26940
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	6/18/2015 11:57:09 PM	R26940
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	6/18/2015 11:57:09 PM	R26940
Surr: Dibromofluoromethane	97.2	70-130		%REC	1	6/18/2015 11:57:09 PM	R26940
Surr: Toluene-d8	103	70-130		%REC	1	6/18/2015 11:57:09 PM	R26940

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R27010			RunNo: 27010					
Prep Date:		Analysis Date: 6/22/2015			SeqNo: 806925		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R27010		RunNo: 27010					
Prep Date:			Analysis Date: 6/22/2015		SeqNo: 806926		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.54	0.0020	0.5000	0	107	85	115			
Chromium	0.53	0.0060	0.5000	0	105	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Silver	0.11	0.0050	0.1000	0	107	85	115			
Zinc	0.54	0.010	0.5000	0	107	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R27027			RunNo: 27027					
Prep Date:		Analysis Date: 6/23/2015			SeqNo: 807377		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R27027		RunNo: 27027					
Prep Date:			Analysis Date: 6/23/2015		SeqNo: 807378		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	103	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB-19861		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 19861		RunNo: 27027					
Prep Date:	6/22/2015		Analysis Date: 6/23/2015		SeqNo: 807477		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-19861		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 19861		RunNo: 27027					
Prep Date:	6/22/2015		Analysis Date: 6/23/2015		SeqNo: 807478		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	100	85	115			
Cadmium	0.54	0.0020	0.5000	0	109	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.50	0.010	0.5000	0	99.9	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R27089		RunNo: 27089							
Prep Date:	Analysis Date: 6/25/2015		SeqNo: 809708		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.7	85	115			
Lead	0.012	0.00050	0.01250	0	97.6	85	115			
Selenium	0.023	0.0010	0.02500	0	92.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.3	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R27089		RunNo: 27089							
Prep Date:	Analysis Date: 6/25/2015		SeqNo: 809709		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R27089		RunNo: 27089							
Prep Date:	Analysis Date: 6/25/2015		SeqNo: 810500		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.0	85	115			
Lead	0.012	0.00050	0.01250	0	98.0	85	115			
Selenium	0.023	0.0010	0.02500	0	93.4	85	115			
Uranium	0.012	0.00050	0.01250	0	97.3	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R27089		RunNo: 27089							
Prep Date:	Analysis Date: 6/25/2015		SeqNo: 810501		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	LLLCS-19861		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 19861		RunNo: 27066					
Prep Date:	6/22/2015		Analysis Date: 6/24/2015		SeqNo: 808919		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.1	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.023	0.0010	0.02500	0	91.1	85	115			
Uranium	0.013	0.00050	0.01250	0	104	85	115			

Sample ID	MB-19861		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 19861		RunNo: 27066					
Prep Date:	6/22/2015		Analysis Date: 6/24/2015		SeqNo: 808921		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB-19842	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	19842	RunNo:	26997					
Prep Date:	6/19/2015	Analysis Date:	6/22/2015	SeqNo:	806448	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-19842	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	19842	RunNo:	26997					
Prep Date:	6/19/2015	Analysis Date:	6/22/2015	SeqNo:	806449	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	MB-19687		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 19687		RunNo: 26825					
Prep Date:	6/11/2015		Analysis Date: 6/15/2015		SeqNo: 800207		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		104	76.5	150			

Sample ID	LCS-19687		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 19687		RunNo: 26825					
Prep Date:	6/11/2015		Analysis Date: 6/15/2015		SeqNo: 800208		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.4	60.1	156			
Surr: DNOP	0.47		0.5000		94.1	76.5	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID B9	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBW	Batch ID: R26838			RunNo: 26838						
Prep Date:	Analysis Date: 6/15/2015			SeqNo: 800551		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.4	57.8	137			

Sample ID 2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSW	Batch ID: R26838			RunNo: 26838						
Prep Date:	Analysis Date: 6/15/2015			SeqNo: 800552		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	89.4	80	120			
Surr: BFB	19		20.00		96.4	57.8	137			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R26940	RunNo:	26940					
Prep Date:		Analysis Date:	6/18/2015	SeqNo:	804181	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R26940	RunNo:	26940					
Prep Date:		Analysis Date:	6/18/2015	SeqNo:	804181	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID	100nglcs200ngT2st	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R26940	RunNo:	26940					
Prep Date:		Analysis Date:	6/18/2015	SeqNo:	804189	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.5	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	100nglcs200ngT2st			SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R26940		RunNo:	26940				
Prep Date:			Analysis Date:	6/18/2015		SeqNo:	804189	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	20	1.0	20.00	0	101	75.6	144				
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130				
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.2	70	130				
Surr: 4-Bromofluorobenzene	9.9		10.00		99.2	70	130				
Surr: Dibromofluoromethane	9.1		10.00		91.4	70	130				
Surr: Toluene-d8	10		10.00		103	70	130				

Sample ID	rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R26940			RunNo: 26940					
Prep Date:		Analysis Date: 6/18/2015			SeqNo: 804328		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R26940	RunNo:	26940					
Prep Date:		Analysis Date:	6/18/2015	SeqNo:	804328	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID rb3		SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW		Batch ID: R26940			RunNo: 26940					
Prep Date:		Analysis Date: 6/18/2015			SeqNo: 804328		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID	100ng lcs2		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R26940		RunNo: 26940					
Prep Date:			Analysis Date: 6/18/2015		SeqNo: 804330		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.3	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.1	75.6	144			
Trichloroethene (TCE)	17	1.0	20.00	0	85.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	mb-19714		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 19714		RunNo: 26853					
Prep Date:	6/15/2015		Analysis Date: 6/16/2015		SeqNo: 801386		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	mb-19714		SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID: 19714			RunNo: 26853				
Prep Date:	6/15/2015		Analysis Date: 6/16/2015			SeqNo: 801386		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	170		200.0		85.4	14.9	111			
Surr: Phenol-d5	180		200.0		89.8	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		99.6	15.7	154			
Surr: Nitrobenzene-d5	90		100.0		89.6	47.8	106			
Surr: 2-Fluorobiphenyl	89		100.0		89.3	21.3	123			
Surr: 4-Terphenyl-d14	120		100.0		122	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	lcs-19714		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 19714		RunNo: 26853					
Prep Date:	6/15/2015		Analysis Date: 6/16/2015		SeqNo: 801387		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	87	10	100.0	0	86.8	47.8	99.7			
4-Chloro-3-methylphenol	190	10	200.0	0	92.7	58.1	103			
2-Chlorophenol	180	10	200.0	0	88.0	49.5	96.8			
1,4-Dichlorobenzene	86	10	100.0	0	86.4	40.4	89.4			
2,4-Dinitrotoluene	72	10	100.0	0	72.3	38.6	91.3			
N-Nitrosodi-n-propylamine	92	10	100.0	0	91.6	53.9	95.6			
4-Nitrophenol	150	10	200.0	0	77.0	26.4	108			
Pentachlorophenol	150	20	200.0	0	75.3	36.5	86.6			
Phenol	170	10	200.0	0	84.8	29.3	108			
Pyrene	110	10	100.0	0	108	45.7	100			S
1,2,4-Trichlorobenzene	88	10	100.0	0	88.3	39.3	94.5			
Surr: 2-Fluorophenol	170		200.0		83.1	14.9	111			
Surr: Phenol-d5	190		200.0		97.1	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		99.3	15.7	154			
Surr: Nitrobenzene-d5	88		100.0		87.9	47.8	106			
Surr: 2-Fluorobiphenyl	91		100.0		91.0	21.3	123			
Surr: 4-Terphenyl-d14	94		100.0		93.7	14.3	135			

Sample ID	lcsd-19714		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 19714		RunNo: 26853					
Prep Date:	6/15/2015		Analysis Date: 6/16/2015		SeqNo: 801388		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	79.0	47.8	99.7	9.34	28.2	
4-Chloro-3-methylphenol	180	10	200.0	0	90.0	58.1	103	2.97	24.4	
2-Chlorophenol	150	10	200.0	0	76.3	49.5	96.8	14.3	28.1	
1,4-Dichlorobenzene	76	10	100.0	0	76.2	40.4	89.4	12.6	31.2	
2,4-Dinitrotoluene	69	10	100.0	0	69.3	38.6	91.3	4.26	44.4	
N-Nitrosodi-n-propylamine	84	10	100.0	0	83.8	53.9	95.6	8.80	24.2	
4-Nitrophenol	140	10	200.0	0	71.5	26.4	108	7.53	36.6	
Pentachlorophenol	150	20	200.0	0	72.7	36.5	86.6	3.54	29.5	
Phenol	150	10	200.0	0	77.2	29.3	108	9.41	30	
Pyrene	98	10	100.0	0	97.9	45.7	100	9.92	31	
1,2,4-Trichlorobenzene	93	10	100.0	0	92.8	39.3	94.5	4.90	24	
Surr: 2-Fluorophenol	150		200.0		77.2	14.9	111	0	0	
Surr: Phenol-d5	170		200.0		84.6	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	200		200.0		101	15.7	154	0	0	
Surr: Nitrobenzene-d5	89		100.0		88.8	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	81		100.0		80.7	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506604

07-Jul-15

Client: Western Refining Southwest, Gallup

Project: 2015 2nd QTR (MKTF)

Sample ID	lcscd-19714	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	19714	RunNo:	26853					
Prep Date:	6/15/2015	Analysis Date:	6/16/2015	SeqNo:	801388	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	85		100.0		84.6	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1506604**

RcptNo: 1

Received by/date:

AT

06/11/15

Logged By: **Lindsay Mangin**

6/11/2015 12:10:00 PM

Completed By: **Lindsay Mangin**

6/12/2015 7:46:01 AM

Reviewed By:

JA

06/12/15

Chain of Custody

1. Custody seals intact on sample bottles?
2. Is Chain of Custody complete?
3. How was the sample delivered?

Yes ☒

No ☐

Not Present ☐

Yes ☒

No ☐

Not Present ☐

Client

Log In

4. Was an attempt made to cool the samples?
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?
6. Sample(s) in proper container(s)?
7. Sufficient sample volume for indicated test(s)?
8. Are samples (except VOA and ONG) properly preserved?
9. Was preservative added to bottles?
10. VOA vials have zero headspace?
11. Were any sample containers received broken?

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☒

Yes ☒

No ☒

NA ☐

Yes ☒

No ☐

No VOA Vials ☐

Yes ☐

No ☒

of preserved bottles checked for pH:

Yes ☒

No ☐

Adjusted?

Yes ☒

No ☐

Adjusted?

Yes ☒

No ☐

Yes ☒

No ☐

Checked by:

FOR DISSOLVED METALS ANALYSIS: ADDED 0.4mL HNO₃ TO

-003IF FOR ACCEPTABLE pH. HELD IN LOGIN FOR 24 H

AFTER PRESERVATION.

10. VOA vials have zero headspace?

11. Were any sample containers received broken?

12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

14. Is it clear what analyses were requested?

15. Were all holding times able to be met?

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 22, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 Annual

OrderNo.: 1508B71

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 8/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1508B71
Date: 9/22/2015

CLIENT: Western Refining Southwest, Gallup
Project: 2015 Annual

Analytical Comments Regarding BOD:
The method blank(s) had a DO depletion >0.2mg/L.
The LCS/LCSD are reported with a > result due to seed overdepletion.

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2015 Annual

Collection Date: 8/23/2015 10:50:00 AM

Lab ID: 1508B71-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	82	10		mg/L	200	8/26/2015 2:24:39 AM	B28455
Surr: BFB	98.2	70-130		%REC	200	8/26/2015 2:24:39 AM	B28455
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	7.4	1.0		mg/L	1	8/26/2015 8:37:10 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 8:37:10 PM	20964
Surr: DNOP	87.0	72-136		%REC	1	8/26/2015 8:37:10 PM	20964
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	42000	2000		µg/L	2E	8/26/2015 1:57:10 AM	A28455
Toluene	6900	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Ethylbenzene	1100	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Methyl tert-butyl ether (MTBE)	1800	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2,4-Trimethylbenzene	210	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,3,5-Trimethylbenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2-Dichloroethane (EDC)	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2-Dibromoethane (EDB)	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Naphthalene	ND	400		µg/L	200	8/26/2015 2:24:39 AM	A28455
1-Methylnaphthalene	ND	800		µg/L	200	8/26/2015 2:24:39 AM	A28455
2-Methylnaphthalene	ND	800		µg/L	200	8/26/2015 2:24:39 AM	A28455
Acetone	ND	2000		µg/L	200	8/26/2015 2:24:39 AM	A28455
Bromobenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Bromodichloromethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Bromoform	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Bromomethane	ND	600		µg/L	200	8/26/2015 2:24:39 AM	A28455
2-Butanone	ND	2000		µg/L	200	8/26/2015 2:24:39 AM	A28455
Carbon disulfide	ND	2000		µg/L	200	8/26/2015 2:24:39 AM	A28455
Carbon Tetrachloride	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Chlorobenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Chloroethane	ND	400		µg/L	200	8/26/2015 2:24:39 AM	A28455
Chloroform	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Chloromethane	ND	600		µg/L	200	8/26/2015 2:24:39 AM	A28455
2-Chlorotoluene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
4-Chlorotoluene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
cis-1,2-DCE	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
cis-1,3-Dichloropropene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2-Dibromo-3-chloropropane	ND	400		µg/L	200	8/26/2015 2:24:39 AM	A28455
Dibromochloromethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Dibromomethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2-Dichlorobenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2015 Annual

Collection Date: 8/23/2015 10:50:00 AM

Lab ID: 1508B71-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,3-Dichlorobenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,4-Dichlorobenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Dichlorodifluoromethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,1-Dichloroethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,1-Dichloroethene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2-Dichloropropane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,3-Dichloropropane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
2,2-Dichloropropane	ND	400		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,1-Dichloropropene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Hexachlorobutadiene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
2-Hexanone	ND	2000		µg/L	200	8/26/2015 2:24:39 AM	A28455
Isopropylbenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
4-Isopropyltoluene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
4-Methyl-2-pentanone	ND	2000		µg/L	200	8/26/2015 2:24:39 AM	A28455
Methylene Chloride	ND	600		µg/L	200	8/26/2015 2:24:39 AM	A28455
n-Butylbenzene	ND	600		µg/L	200	8/26/2015 2:24:39 AM	A28455
n-Propylbenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
sec-Butylbenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Styrene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
tert-Butylbenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,1,1,2-Tetrachloroethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,1,2,2-Tetrachloroethane	ND	400		µg/L	200	8/26/2015 2:24:39 AM	A28455
Tetrachloroethene (PCE)	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
trans-1,2-DCE	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
trans-1,3-Dichloropropene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2,3-Trichlorobenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2,4-Trichlorobenzene	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,1,1-Trichloroethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,1,2-Trichloroethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Trichloroethene (TCE)	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Trichlorofluoromethane	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
1,2,3-Trichloropropane	ND	400		µg/L	200	8/26/2015 2:24:39 AM	A28455
Vinyl chloride	ND	200		µg/L	200	8/26/2015 2:24:39 AM	A28455
Xylenes, Total	3700	300		µg/L	200	8/26/2015 2:24:39 AM	A28455
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	200	8/26/2015 2:24:39 AM	A28455
Surr: 4-Bromofluorobenzene	109	70-130		%REC	200	8/26/2015 2:24:39 AM	A28455
Surr: Dibromofluoromethane	110	70-130		%REC	200	8/26/2015 2:24:39 AM	A28455
Surr: Toluene-d8	95.6	70-130		%REC	200	8/26/2015 2:24:39 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2015 Annual

Collection Date: 8/23/2015 9:45:00 AM

Lab ID: 1508B71-002

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	2.2	0.25		mg/L	5	8/26/2015 3:46:42 AM	B28455
Surr: BFB	102	70-130		%REC	5	8/26/2015 3:46:42 AM	B28455
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	4.1	1.0		mg/L	1	8/26/2015 9:41:43 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 9:41:43 PM	20964
Surr: DNOP	92.9	72-136		%REC	1	8/26/2015 9:41:43 PM	20964
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	430	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Toluene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Ethylbenzene	37	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2,4-Trimethylbenzene	41	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,3,5-Trimethylbenzene	12	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Naphthalene	85	10		µg/L	5	8/26/2015 3:46:42 AM	A28455
1-Methylnaphthalene	67	20		µg/L	5	8/26/2015 3:46:42 AM	A28455
2-Methylnaphthalene	83	20		µg/L	5	8/26/2015 3:46:42 AM	A28455
Acetone	ND	50		µg/L	5	8/26/2015 3:46:42 AM	A28455
Bromobenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Bromodichloromethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Bromoform	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Bromomethane	ND	15		µg/L	5	8/26/2015 3:46:42 AM	A28455
2-Butanone	ND	50		µg/L	5	8/26/2015 3:46:42 AM	A28455
Carbon disulfide	ND	50		µg/L	5	8/26/2015 3:46:42 AM	A28455
Carbon Tetrachloride	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Chlorobenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Chloroethane	ND	10		µg/L	5	8/26/2015 3:46:42 AM	A28455
Chloroform	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Chloromethane	ND	15		µg/L	5	8/26/2015 3:46:42 AM	A28455
2-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
4-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
cis-1,2-DCE	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/26/2015 3:46:42 AM	A28455
Dibromochloromethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Dibromomethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2015 Annual

Collection Date: 8/23/2015 9:45:00 AM

Lab ID: 1508B71-002

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,1-Dichloroethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,1-Dichloroethene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,3-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
2,2-Dichloropropane	ND	10		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,1-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Hexachlorobutadiene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
2-Hexanone	ND	50		µg/L	5	8/26/2015 3:46:42 AM	A28455
Isopropylbenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
4-Isopropyltoluene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
4-Methyl-2-pentanone	ND	50		µg/L	5	8/26/2015 3:46:42 AM	A28455
Methylene Chloride	ND	15		µg/L	5	8/26/2015 3:46:42 AM	A28455
n-Butylbenzene	ND	15		µg/L	5	8/26/2015 3:46:42 AM	A28455
n-Propylbenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
sec-Butylbenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Styrene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
tert-Butylbenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/26/2015 3:46:42 AM	A28455
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
trans-1,2-DCE	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Trichlorofluoromethane	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
1,2,3-Trichloropropane	ND	10		µg/L	5	8/26/2015 3:46:42 AM	A28455
Vinyl chloride	ND	5.0		µg/L	5	8/26/2015 3:46:42 AM	A28455
Xylenes, Total	70	7.5		µg/L	5	8/26/2015 3:46:42 AM	A28455
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	5	8/26/2015 3:46:42 AM	A28455
Surr: 4-Bromofluorobenzene	92.4	70-130		%REC	5	8/26/2015 3:46:42 AM	A28455
Surr: Dibromofluoromethane	105	70-130		%REC	5	8/26/2015 3:46:42 AM	A28455
Surr: Toluene-d8	98.6	70-130		%REC	5	8/26/2015 3:46:42 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2015 Annual

Collection Date: 8/23/2015 10:14:00 AM

Lab ID: 1508B71-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	4.9	0.50		mg/L	10	8/26/2015 5:09:08 AM	B28455
Surr: BFB	97.7	70-130		%REC	10	8/26/2015 5:09:08 AM	B28455
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	1400	100		mg/L	100	8/27/2015 9:57:49 AM	20964
Motor Oil Range Organics (MRO)	ND	500		mg/L	100	8/27/2015 9:57:49 AM	20964
Surr: DNOP	0	72-136	S	%REC	100	8/27/2015 9:57:49 AM	20964
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	360	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Toluene	71	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Ethylbenzene	93	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Methyl tert-butyl ether (MTBE)	50	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2,4-Trimethylbenzene	95	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,3,5-Trimethylbenzene	110	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Naphthalene	410	20		µg/L	10	8/26/2015 5:09:08 AM	A28455
1-Methylnaphthalene	220	40		µg/L	10	8/26/2015 5:09:08 AM	A28455
2-Methylnaphthalene	290	40		µg/L	10	8/26/2015 5:09:08 AM	A28455
Acetone	ND	100		µg/L	10	8/26/2015 5:09:08 AM	A28455
Bromobenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Bromodichloromethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Bromoform	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Bromomethane	ND	30		µg/L	10	8/26/2015 5:09:08 AM	A28455
2-Butanone	ND	100		µg/L	10	8/26/2015 5:09:08 AM	A28455
Carbon disulfide	ND	100		µg/L	10	8/26/2015 5:09:08 AM	A28455
Carbon Tetrachloride	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Chlorobenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Chloroethane	ND	20		µg/L	10	8/26/2015 5:09:08 AM	A28455
Chloroform	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Chloromethane	ND	30		µg/L	10	8/26/2015 5:09:08 AM	A28455
2-Chlorotoluene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
4-Chlorotoluene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
cis-1,2-DCE	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/26/2015 5:09:08 AM	A28455
Dibromochloromethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Dibromomethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2-Dichlorobenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2015 Annual

Collection Date: 8/23/2015 10:14:00 AM

Lab ID: 1508B71-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,3-Dichlorobenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,4-Dichlorobenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Dichlorodifluoromethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,1-Dichloroethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,1-Dichloroethene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2-Dichloropropane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,3-Dichloropropane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
2,2-Dichloropropane	ND	20		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,1-Dichloropropene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Hexachlorobutadiene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
2-Hexanone	ND	100		µg/L	10	8/26/2015 5:09:08 AM	A28455
Isopropylbenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
4-Isopropyltoluene	10	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
4-Methyl-2-pentanone	ND	100		µg/L	10	8/26/2015 5:09:08 AM	A28455
Methylene Chloride	ND	30		µg/L	10	8/26/2015 5:09:08 AM	A28455
n-Butylbenzene	ND	30		µg/L	10	8/26/2015 5:09:08 AM	A28455
n-Propylbenzene	12	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
sec-Butylbenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Styrene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
tert-Butylbenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/26/2015 5:09:08 AM	A28455
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
trans-1,2-DCE	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,1,1-Trichloroethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,1,2-Trichloroethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Trichloroethene (TCE)	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Trichlorofluoromethane	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
1,2,3-Trichloropropane	ND	20		µg/L	10	8/26/2015 5:09:08 AM	A28455
Vinyl chloride	ND	10		µg/L	10	8/26/2015 5:09:08 AM	A28455
Xylenes, Total	670	15		µg/L	10	8/26/2015 5:09:08 AM	A28455
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	10	8/26/2015 5:09:08 AM	A28455
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	10	8/26/2015 5:09:08 AM	A28455
Surr: Dibromofluoromethane	102	70-130		%REC	10	8/26/2015 5:09:08 AM	A28455
Surr: Toluene-d8	93.4	70-130		%REC	10	8/26/2015 5:09:08 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2015 Annual

Collection Date: 8/23/2015 11:44:00 AM

Lab ID: 1508B71-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0034	0.0010		mg/L	1	9/4/2015 4:25:52 PM	D28672
Lead	ND	0.00050		mg/L	1	9/4/2015 4:25:52 PM	D28672
Selenium	0.0014	0.0010		mg/L	1	9/4/2015 4:25:52 PM	D28672
Uranium	0.0016	0.00050		mg/L	1	9/4/2015 4:25:52 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.16	0.10		mg/L	1	8/25/2015 9:42:04 PM	R28469
Chloride	31	10		mg/L	20	8/25/2015 9:54:28 PM	R28469
Bromide	0.10	0.10		mg/L	1	8/25/2015 9:42:04 PM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/18/2015 5:05:34 PM	R28975
Sulfate	750	10		mg/L	20	8/25/2015 9:54:28 PM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 2:50:52 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.011	0.0020		mg/L	1	9/3/2015 7:34:10 PM	B28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:34:10 PM	B28648
Calcium	250	5.0		mg/L	5	9/3/2015 7:36:11 PM	B28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:34:10 PM	B28648
Copper	ND	0.0060		mg/L	1	9/3/2015 7:34:10 PM	B28648
Iron	0.034	0.020		mg/L	1	9/3/2015 7:34:10 PM	B28648
Magnesium	50	1.0		mg/L	1	9/3/2015 7:34:10 PM	B28648
Manganese	ND	0.0020		mg/L	1	9/3/2015 7:34:10 PM	B28648
Potassium	1.6	1.0		mg/L	1	9/3/2015 7:34:10 PM	B28648
Silver	ND	0.0050		mg/L	1	9/3/2015 7:34:10 PM	B28648
Sodium	62	1.0		mg/L	1	9/3/2015 7:34:10 PM	B28648
Zinc	ND	0.010		mg/L	1	9/3/2015 7:34:10 PM	B28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.010	0.0020		mg/L	1	9/2/2015 2:48:17 PM	21078
Cadmium	ND	0.0020		mg/L	1	9/2/2015 2:48:17 PM	21078
Chromium	ND	0.0060		mg/L	1	9/2/2015 2:48:17 PM	21078
Copper	ND	0.0060		mg/L	1	9/2/2015 2:48:17 PM	21078
Iron	0.079	0.020		mg/L	1	9/2/2015 2:48:17 PM	21078
Manganese	ND	0.0020		mg/L	1	9/2/2015 2:48:17 PM	21078
Silver	ND	0.0050		mg/L	1	9/2/2015 2:48:17 PM	21078
Zinc	ND	0.010		mg/L	1	9/2/2015 3:42:27 PM	21078
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0035	0.0010		mg/L	1	9/1/2015 8:51:46 PM	21078
Lead	ND	0.00050		mg/L	1	9/1/2015 8:51:46 PM	21078
Selenium	0.0012	0.0010		mg/L	1	9/1/2015 8:51:46 PM	21078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2015 Annual

Collection Date: 8/23/2015 11:44:00 AM

Lab ID: 1508B71-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0017	0.00050		mg/L	1	9/1/2015 8:51:46 PM	21078
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/27/2015 4:07:03 PM	21011
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/26/2015 5:36:43 AM	B28455
Surr: BFB	96.7	70-130		%REC	1	8/26/2015 5:36:43 AM	B28455
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 10:24:53 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 10:24:53 PM	20964
Surr: DNOP	92.8	72-136		%REC	1	8/26/2015 10:24:53 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 5:57:52 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2015 Annual

Collection Date: 8/23/2015 11:44:00 AM

Lab ID: 1508B71-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 5:57:52 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 5:57:52 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 5:57:52 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 5:57:52 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2015 Annual

Collection Date: 8/23/2015 11:44:00 AM

Lab ID: 1508B71-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 5:57:52 PM	20975
Surr: 2-Fluorophenol	52.7	14.9-111		%REC	1	8/26/2015 5:57:52 PM	20975
Surr: Phenol-d5	46.8	11.3-108		%REC	1	8/26/2015 5:57:52 PM	20975
Surr: 2,4,6-Tribromophenol	76.7	15.7-154		%REC	1	8/26/2015 5:57:52 PM	20975
Surr: Nitrobenzene-d5	67.6	47.8-106		%REC	1	8/26/2015 5:57:52 PM	20975
Surr: 2-Fluorobiphenyl	70.0	21.3-123		%REC	1	8/26/2015 5:57:52 PM	20975
Surr: 4-Terphenyl-d14	64.8	14.3-135		%REC	1	8/26/2015 5:57:52 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Toluene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Naphthalene	ND	2.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Acetone	ND	10		µg/L	1	8/26/2015 5:36:43 AM	A28455
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Bromoform	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Bromomethane	ND	3.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
2-Butanone	ND	10		µg/L	1	8/26/2015 5:36:43 AM	A28455
Carbon disulfide	ND	10		µg/L	1	8/26/2015 5:36:43 AM	A28455
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Chloroethane	ND	2.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Chloroform	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Chloromethane	ND	3.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2015 Annual

Collection Date: 8/23/2015 11:44:00 AM

Lab ID: 1508B71-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
2-Hexanone	ND	10		µg/L	1	8/26/2015 5:36:43 AM	A28455
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 5:36:43 AM	A28455
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Styrene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 5:36:43 AM	A28455
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 5:36:43 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2015 Annual

Collection Date: 8/23/2015 11:44:00 AM

Lab ID: 1508B71-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	8/26/2015 5:36:43 AM	A28455
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	1	8/26/2015 5:36:43 AM	A28455
Surr: Dibromofluoromethane	107	70-130		%REC	1	8/26/2015 5:36:43 AM	A28455
Surr: Toluene-d8	94.5	70-130		%REC	1	8/26/2015 5:36:43 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 Annual

Collection Date:

Lab ID: 1508B71-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Toluene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Naphthalene	ND	2.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Acetone	ND	10		µg/L	1	8/26/2015 6:04:17 AM	A28455
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Bromoform	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Bromomethane	ND	3.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
2-Butanone	ND	10		µg/L	1	8/26/2015 6:04:17 AM	A28455
Carbon disulfide	ND	10		µg/L	1	8/26/2015 6:04:17 AM	A28455
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Chloroethane	ND	2.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Chloroform	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Chloromethane	ND	3.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 6:04:17 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 Annual

Collection Date:

Lab ID: 1508B71-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
2-Hexanone	ND	10		µg/L	1	8/26/2015 6:04:17 AM	A28455
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 6:04:17 AM	A28455
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Styrene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 6:04:17 AM	A28455
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 6:04:17 AM	A28455
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%REC	1	8/26/2015 6:04:17 AM	A28455
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	8/26/2015 6:04:17 AM	A28455
Surr: Dibromofluoromethane	101	70-130		%REC	1	8/26/2015 6:04:17 AM	A28455
Surr: Toluene-d8	96.7	70-130		%REC	1	8/26/2015 6:04:17 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 Annual

Collection Date:

Lab ID: 1508B71-006

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/26/2015 6:31:43 AM	B28455
Surr: BFB	93.3	70-130		%REC	1	8/26/2015 6:31:43 AM	B28455
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Toluene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Naphthalene	ND	2.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Acetone	ND	10		µg/L	1	8/26/2015 6:31:43 AM	A28455
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Bromoform	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Bromomethane	ND	3.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
2-Butanone	ND	10		µg/L	1	8/26/2015 6:31:43 AM	A28455
Carbon disulfide	ND	10		µg/L	1	8/26/2015 6:31:43 AM	A28455
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Chloroethane	ND	2.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Chloroform	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Chloromethane	ND	3.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 Annual

Collection Date:

Lab ID: 1508B71-006

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
2-Hexanone	ND	10		µg/L	1	8/26/2015 6:31:43 AM	A28455
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 6:31:43 AM	A28455
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Styrene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 6:31:43 AM	A28455
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 6:31:43 AM	A28455
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	8/26/2015 6:31:43 AM	A28455
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	8/26/2015 6:31:43 AM	A28455
Surr: Dibromofluoromethane	107	70-130		%REC	1	8/26/2015 6:31:43 AM	A28455
Surr: Toluene-d8	95.4	70-130		%REC	1	8/26/2015 6:31:43 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2015 Annual

Collection Date: 8/24/2015 8:00:00 AM

Lab ID: 1508B71-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.14	0.010	*	mg/L	10	8/27/2015 1:58:18 PM	B28505
Lead	0.0041	0.00050		mg/L	1	8/27/2015 11:20:37 AM	B28496
Selenium	0.011	0.010		mg/L	10	8/27/2015 1:58:18 PM	B28505
Uranium	0.015	0.00050		mg/L	1	8/27/2015 11:20:37 AM	B28496
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.6	1.0		mg/L	10	8/25/2015 10:06:53 PM	R28469
Chloride	1100	50		mg/L	100	8/25/2015 10:19:18 PM	R28469
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	8/25/2015 10:06:53 PM	R28469
Bromide	2.6	1.0		mg/L	10	8/25/2015 10:06:53 PM	R28469
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	8/25/2015 10:06:53 PM	R28469
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	9/18/2015 12:40:19 AM	R28953
Sulfate	67	5.0		mg/L	10	8/25/2015 10:06:53 PM	R28469
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.44	0.0020		mg/L	1	8/27/2015 4:37:28 PM	B28494
Cadmium	ND	0.0020		mg/L	1	8/27/2015 4:37:28 PM	B28494
Calcium	230	5.0		mg/L	5	8/27/2015 4:49:15 PM	B28494
Chromium	ND	0.0060		mg/L	1	8/27/2015 4:37:28 PM	B28494
Copper	ND	0.0060		mg/L	1	8/27/2015 4:37:28 PM	B28494
Iron	9.2	0.40	*	mg/L	20	8/27/2015 4:50:56 PM	B28494
Magnesium	56	5.0		mg/L	5	8/27/2015 4:49:15 PM	B28494
Manganese	2.0	0.010	*	mg/L	5	8/27/2015 4:49:15 PM	B28494
Potassium	2.2	1.0		mg/L	1	8/27/2015 4:37:28 PM	B28494
Silver	ND	0.0050		mg/L	1	8/27/2015 4:37:28 PM	B28494
Sodium	1100	20		mg/L	20	8/27/2015 4:50:56 PM	B28494
Zinc	0.026	0.010		mg/L	1	8/27/2015 4:37:28 PM	B28494
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.47	0.0020		mg/L	1	8/27/2015 12:29:39 PM	21001
Cadmium	ND	0.0020		mg/L	1	8/27/2015 12:29:39 PM	21001
Chromium	ND	0.0060		mg/L	1	8/27/2015 12:29:39 PM	21001
Copper	ND	0.0060		mg/L	1	8/27/2015 12:29:39 PM	21001
Iron	12	0.40	*	mg/L	20	8/27/2015 12:50:52 PM	21001
Manganese	2.1	0.010	*	mg/L	5	8/27/2015 12:42:44 PM	21001
Silver	ND	0.0050		mg/L	1	8/27/2015 12:29:39 PM	21001
Zinc	0.025	0.010		mg/L	1	8/27/2015 12:29:39 PM	21001
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.27	0.010	*	mg/L	10	8/27/2015 6:06:49 PM	21001
Lead	0.0077	0.00050		mg/L	1	8/27/2015 6:11:51 PM	21001

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2015 Annual

Collection Date: 8/24/2015 8:00:00 AM

Lab ID: 1508B71-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.011	0.010		mg/L	10	8/27/2015 6:06:49 PM	21001
Uranium	0.015	0.0050		mg/L	10	8/27/2015 6:06:49 PM	21001
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/27/2015 4:13:08 PM	21011
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	1.2	0.25		mg/L	5	8/26/2015 2:51:07 PM	A28474
Surr: BFB	100	70-130		%REC	5	8/26/2015 2:51:07 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	250	10		mg/L	10	8/26/2015 2:55:14 PM	20964
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	8/26/2015 2:55:14 PM	20964
Surr: DNOP	0	72-136	S	%REC	10	8/26/2015 2:55:14 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Acenaphthylene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Aniline	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Anthracene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Azobenzene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Benz(a)anthracene	1300	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Benzo(a)pyrene	620	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Benzo(b)fluoranthene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Benzo(g,h,i)perylene	340	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Benzo(k)fluoranthene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Benzoic acid	ND	500	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Benzyl alcohol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Bis(2-chloroethoxy)methane	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Bis(2-chloroethyl)ether	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Bis(2-chloroisopropyl)ether	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Bis(2-ethylhexyl)phthalate	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
4-Bromophenyl phenyl ether	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Butyl benzyl phthalate	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Carbazole	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
4-Chloro-3-methylphenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
4-Chloroaniline	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2-Chloronaphthalene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2-Chlorophenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
4-Chlorophenyl phenyl ether	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Chrysene	1800	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2015 Annual

Collection Date: 8/24/2015 8:00:00 AM

Lab ID: 1508B71-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Di-n-octyl phthalate	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Dibenz(a,h)anthracene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Dibenzofuran	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
1,2-Dichlorobenzene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
1,3-Dichlorobenzene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
1,4-Dichlorobenzene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
3,3'-Dichlorobenzidine	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Diethyl phthalate	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Dimethyl phthalate	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2,4-Dichlorophenol	ND	500	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2,4-Dimethylphenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
4,6-Dinitro-2-methylphenol	ND	500	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2,4-Dinitrophenol	ND	500	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2,4-Dinitrotoluene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2,6-Dinitrotoluene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Fluoranthene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Fluorene	5400	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Hexachlorobenzene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Hexachlorobutadiene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Hexachlorocyclopentadiene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Hexachloroethane	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Indeno(1,2,3-cd)pyrene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Isophorone	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
1-Methylnaphthalene	37000	2500	D	µg/L	10	8/27/2015 10:52:00 PM	20975
2-Methylnaphthalene	27000	2500	D	µg/L	10	8/27/2015 10:52:00 PM	20975
2-Methylphenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
3+4-Methylphenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
N-Nitrosodi-n-propylamine	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
N-Nitrosodimethylamine	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
N-Nitrosodiphenylamine	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Naphthalene	2500	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2-Nitroaniline	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
3-Nitroaniline	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
4-Nitroaniline	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Nitrobenzene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2-Nitrophenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
4-Nitrophenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Pentachlorophenol	ND	500	D	µg/L	1	8/27/2015 10:20:43 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2015 Annual

Collection Date: 8/24/2015 8:00:00 AM

Lab ID: 1508B71-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	25000	2500	D	µg/L	10	8/27/2015 10:52:00 PM	20975
Phenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Pyrene	4800	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Pyridine	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
1,2,4-Trichlorobenzene	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2,4,5-Trichlorophenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
2,4,6-Trichlorophenol	ND	250	D	µg/L	1	8/27/2015 10:20:43 PM	20975
Surr: 2-Fluorophenol	0	14.9-111	SD	%REC	1	8/27/2015 10:20:43 PM	20975
Surr: Phenol-d5	0	11.3-108	SD	%REC	1	8/27/2015 10:20:43 PM	20975
Surr: 2,4,6-Tribromophenol	0	15.7-154	SD	%REC	1	8/27/2015 10:20:43 PM	20975
Surr: Nitrobenzene-d5	0	47.8-106	SD	%REC	1	8/27/2015 10:20:43 PM	20975
Surr: 2-Fluorobiphenyl	0	21.3-123	SD	%REC	1	8/27/2015 10:20:43 PM	20975
Surr: 4-Terphenyl-d14	0	14.3-135	SD	%REC	1	8/27/2015 10:20:43 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	8.5	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Toluene	33	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Ethylbenzene	11	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Methyl tert-butyl ether (MTBE)	40	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2,4-Trimethylbenzene	63	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,3,5-Trimethylbenzene	17	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Naphthalene	45	10		µg/L	5	8/26/2015 2:51:07 PM	R28474
1-Methylnaphthalene	67	20		µg/L	5	8/26/2015 2:51:07 PM	R28474
2-Methylnaphthalene	87	20		µg/L	5	8/26/2015 2:51:07 PM	R28474
Acetone	ND	50		µg/L	5	8/26/2015 2:51:07 PM	R28474
Bromobenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Bromodichloromethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Bromoform	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Bromomethane	ND	15		µg/L	5	8/26/2015 2:51:07 PM	R28474
2-Butanone	ND	50		µg/L	5	8/26/2015 2:51:07 PM	R28474
Carbon disulfide	ND	50		µg/L	5	8/26/2015 2:51:07 PM	R28474
Carbon Tetrachloride	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Chlorobenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Chloroethane	ND	10		µg/L	5	8/26/2015 2:51:07 PM	R28474
Chloroform	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Chloromethane	ND	15		µg/L	5	8/26/2015 2:51:07 PM	R28474
2-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
4-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2015 Annual

Collection Date: 8/24/2015 8:00:00 AM

Lab ID: 1508B71-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
cis-1,2-DCE	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/26/2015 2:51:07 PM	R28474
Dibromochloromethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Dibromomethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,1-Dichloroethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,1-Dichloroethene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,3-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
2,2-Dichloropropane	ND	10		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,1-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Hexachlorobutadiene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
2-Hexanone	ND	50		µg/L	5	8/26/2015 2:51:07 PM	R28474
Isopropylbenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
4-Isopropyltoluene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
4-Methyl-2-pentanone	ND	50		µg/L	5	8/26/2015 2:51:07 PM	R28474
Methylene Chloride	ND	15		µg/L	5	8/26/2015 2:51:07 PM	R28474
n-Butylbenzene	ND	15		µg/L	5	8/26/2015 2:51:07 PM	R28474
n-Propylbenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
sec-Butylbenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Styrene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
tert-Butylbenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/26/2015 2:51:07 PM	R28474
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
trans-1,2-DCE	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
Trichlorofluoromethane	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474
1,2,3-Trichloropropane	ND	10		µg/L	5	8/26/2015 2:51:07 PM	R28474
Vinyl chloride	ND	5.0		µg/L	5	8/26/2015 2:51:07 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2015 Annual

Collection Date: 8/24/2015 8:00:00 AM

Lab ID: 1508B71-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	110	7.5		µg/L	5	8/26/2015 2:51:07 PM	R28474
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%REC	5	8/26/2015 2:51:07 PM	R28474
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	5	8/26/2015 2:51:07 PM	R28474
Surr: Dibromofluoromethane	103	70-130		%REC	5	8/26/2015 2:51:07 PM	R28474
Surr: Toluene-d8	91.0	70-130		%REC	5	8/26/2015 2:51:07 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 Annual

Collection Date: 8/24/2015 9:20:00 AM

Lab ID: 1508B71-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	9/4/2015 4:35:06 PM	D28672
Lead	ND	0.00050		mg/L	1	9/4/2015 4:35:06 PM	D28672
Selenium	0.0033	0.0010		mg/L	1	9/4/2015 4:35:06 PM	D28672
Uranium	0.023	0.00050		mg/L	1	9/4/2015 4:35:06 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.69	0.10		mg/L	1	8/25/2015 10:31:43 PM	R28469
Chloride	210	10		mg/L	20	8/25/2015 10:44:08 PM	R28469
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/25/2015 10:31:43 PM	R28469
Bromide	0.81	0.10		mg/L	1	8/25/2015 10:31:43 PM	R28469
Nitrogen, Nitrate (As N)	3.2	0.10		mg/L	1	8/25/2015 10:31:43 PM	R28469
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/18/2015 12:03:05 AM	R28953
Sulfate	390	10		mg/L	20	8/25/2015 10:44:08 PM	R28469
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.066	0.0020		mg/L	1	9/3/2015 7:38:16 PM	B28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:38:16 PM	B28648
Calcium	140	5.0		mg/L	5	9/3/2015 7:40:22 PM	B28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:38:16 PM	B28648
Copper	ND	0.0060		mg/L	1	9/3/2015 7:38:16 PM	B28648
Iron	0.094	0.020		mg/L	1	9/3/2015 7:38:16 PM	B28648
Magnesium	28	1.0		mg/L	1	9/3/2015 7:38:16 PM	B28648
Manganese	3.0	0.010	*	mg/L	5	9/3/2015 7:40:22 PM	B28648
Potassium	1.9	1.0		mg/L	1	9/3/2015 7:38:16 PM	B28648
Silver	ND	0.0050		mg/L	1	9/3/2015 7:38:16 PM	B28648
Sodium	270	5.0		mg/L	5	9/3/2015 7:40:22 PM	B28648
Zinc	ND	0.010		mg/L	1	9/3/2015 7:38:16 PM	B28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.49	0.0020		mg/L	1	9/2/2015 2:50:19 PM	21078
Cadmium	ND	0.0020		mg/L	1	9/2/2015 2:50:19 PM	21078
Chromium	0.0062	0.0060		mg/L	1	9/2/2015 2:50:19 PM	21078
Copper	0.0077	0.0060		mg/L	1	9/2/2015 2:50:19 PM	21078
Iron	7.2	0.20	*	mg/L	10	9/2/2015 5:08:10 PM	21078
Manganese	3.9	0.020	*	mg/L	10	9/2/2015 5:08:10 PM	21078
Silver	ND	0.0050		mg/L	1	9/2/2015 2:50:19 PM	21078
Zinc	0.025	0.010		mg/L	1	9/2/2015 3:44:14 PM	21078
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0028	0.0010		mg/L	1	9/1/2015 8:54:46 PM	21078
Lead	0.0096	0.00050		mg/L	1	9/1/2015 8:54:46 PM	21078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 Annual

Collection Date: 8/24/2015 9:20:00 AM

Lab ID: 1508B71-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.0038	0.0010		mg/L	1	9/1/2015 8:54:46 PM	21078
Uranium	0.019	0.00050		mg/L	1	9/1/2015 8:54:46 PM	21078
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/27/2015 4:15:11 PM	21011
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.099	0.050		mg/L	1	8/26/2015 7:26:28 AM	B28455
Surr: BFB	94.5	70-130		%REC	1	8/26/2015 7:26:28 AM	B28455
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 10:46:28 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 10:46:28 PM	20964
Surr: DNOP	97.0	72-136		%REC	1	8/26/2015 10:46:28 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 6:27:48 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 Annual

Collection Date: 8/24/2015 9:20:00 AM

Lab ID: 1508B71-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 6:27:48 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 6:27:48 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 6:27:48 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 6:27:48 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 Annual

Collection Date: 8/24/2015 9:20:00 AM

Lab ID: 1508B71-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Phenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 6:27:48 PM	20975
Surr: 2-Fluorophenol	68.0	14.9-111		%REC	1	8/26/2015 6:27:48 PM	20975
Surr: Phenol-d5	63.6	11.3-108		%REC	1	8/26/2015 6:27:48 PM	20975
Surr: 2,4,6-Tribromophenol	109	15.7-154		%REC	1	8/26/2015 6:27:48 PM	20975
Surr: Nitrobenzene-d5	101	47.8-106		%REC	1	8/26/2015 6:27:48 PM	20975
Surr: 2-Fluorobiphenyl	103	21.3-123		%REC	1	8/26/2015 6:27:48 PM	20975
Surr: 4-Terphenyl-d14	81.3	14.3-135		%REC	1	8/26/2015 6:27:48 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	1.7	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Toluene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Methyl tert-butyl ether (MTBE)	7.3	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Naphthalene	ND	2.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Acetone	ND	10		µg/L	1	8/26/2015 7:26:28 AM	A28455
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Bromoform	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Bromomethane	ND	3.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
2-Butanone	ND	10		µg/L	1	8/26/2015 7:26:28 AM	A28455
Carbon disulfide	ND	10		µg/L	1	8/26/2015 7:26:28 AM	A28455
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Chloroethane	ND	2.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Chloroform	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Chloromethane	ND	3.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 Annual

Collection Date: 8/24/2015 9:20:00 AM

Lab ID: 1508B71-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
2-Hexanone	ND	10		µg/L	1	8/26/2015 7:26:28 AM	A28455
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 7:26:28 AM	A28455
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Styrene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 7:26:28 AM	A28455
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 7:26:28 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 Annual

Collection Date: 8/24/2015 9:20:00 AM

Lab ID: 1508B71-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 7:26:28 AM	A28455
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	1	8/26/2015 7:26:28 AM	A28455
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	1	8/26/2015 7:26:28 AM	A28455
Surr: Dibromofluoromethane	103	70-130		%REC	1	8/26/2015 7:26:28 AM	A28455
Surr: Toluene-d8	97.3	70-130		%REC	1	8/26/2015 7:26:28 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-EP-2

Project: 2015 Annual

Collection Date: 8/24/2015 8:35:00 AM

Lab ID: 1508B71-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	380	2.0		mg/L	1	8/31/2015 2:23:00 PM	20974
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	2420	100	*D	mg/L	1	8/27/2015 12:01:00 PM	20986
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.13	0.10	D	mg/L	2	8/26/2015 8:21:26 AM	B28455
Surr: BFB	99.3	70-130	D	%REC	2	8/26/2015 8:21:26 AM	B28455
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	2.3	1.0		mg/L	1	8/26/2015 11:07:55 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 11:07:55 PM	20964
Surr: DNOP	93.2	72-136		%REC	1	8/26/2015 11:07:55 PM	20964
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Toluene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Ethylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Naphthalene	ND	4.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1-Methylnaphthalene	ND	8.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
2-Methylnaphthalene	ND	8.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Acetone	250	200		µg/L	20	8/26/2015 7:53:54 AM	A28455
Bromobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Bromodichloromethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Bromoform	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Bromomethane	ND	6.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
2-Butanone	ND	20	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Carbon disulfide	ND	20	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Carbon Tetrachloride	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Chlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Chloroethane	ND	4.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Chloroform	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Chloromethane	ND	6.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
2-Chlorotoluene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
4-Chlorotoluene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
cis-1,2-DCE	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-EP-2

Project: 2015 Annual

Collection Date: 8/24/2015 8:35:00 AM

Lab ID: 1508B71-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Dibromochloromethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Dibromomethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,1-Dichloroethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,1-Dichloroethene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2-Dichloropropane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,3-Dichloropropane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
2,2-Dichloropropane	ND	4.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,1-Dichloropropene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Hexachlorobutadiene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
2-Hexanone	ND	20	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Isopropylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
4-Isopropyltoluene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
4-Methyl-2-pentanone	ND	20	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Methylene Chloride	ND	6.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
n-Butylbenzene	ND	6.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
n-Propylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
sec-Butylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Styrene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
tert-Butylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
trans-1,2-DCE	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Trichlorofluoromethane	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Vinyl chloride	ND	2.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455
Xylenes, Total	ND	3.0	D	µg/L	2	8/26/2015 8:21:26 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B71

Date Reported: 9/22/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-EP-2

Project: 2015 Annual

Collection Date: 8/24/2015 8:35:00 AM

Lab ID: 1508B71-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:42:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	95.0	70-130	D	%REC	2	8/26/2015 8:21:26 AM	A28455
Surr: 4-Bromofluorobenzene	107	70-130	D	%REC	2	8/26/2015 8:21:26 AM	A28455
Surr: Dibromofluoromethane	109	70-130	D	%REC	2	8/26/2015 8:21:26 AM	A28455
Surr: Toluene-d8	97.1	70-130	D	%REC	2	8/26/2015 8:21:26 AM	A28455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

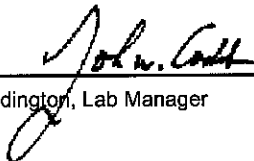
Batch #: 150826020
Project Name: 1508B71

Analytical Results Report

Sample Number	150826020-001	Sampling Date	8/23/2015	Date/Time Received	8/26/2015 11:25 AM
Client Sample ID	1508B71-004H / PW-3	Sampling Time	11:44 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/2/2015	MER	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 150826020
Project Name: 1508B71

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.483	mg/L	0.5	96.6	90-110	8/28/2015	8/28/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
150821037-001	Cyanide	ND	0.458	mg/L	0.5	91.6	90-110	8/28/2015	8/28/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.468	mg/L	0.5	93.6	2.2	0-20	8/28/2015	8/28/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	8/28/2015	8/28/2015

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

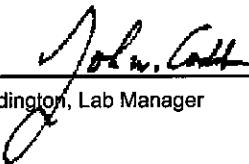
Batch #: 150828041
Project Name: 1508B71

Analytical Results Report

Sample Number	150828041-001	Sampling Date	8/24/2015	Date/Time Received	8/28/2015 11:30 AM
Client Sample ID	1508B71-009F / STP1-EP-2	Sampling Time	8:35 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	80.6	mg/L	5	9/1/2015 10:15:00 AM	JDB	EPA 410.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 150828041
Project Name: 1508B71

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
COD	101	mg/L	100	101.0	90-110	9/1/2015	9/1/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
COD	<5	mg/L	5	9/1/2015	9/1/2015

Duplicate

Sample Number	Parameter	Sample Result	Duplicate Result	Units	%RPD	AR %RPD	Prep Date	Analysis Date
150828051-002	COD	<5	<5	mg/L	0.0	0-20	9/1/2015	9/1/2015

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: B28494		RunNo: 28494							
Prep Date:	Analysis Date: 8/27/2015		SeqNo: 861631		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: B28494		RunNo: 28494							
Prep Date:	Analysis Date: 8/27/2015		SeqNo: 861632		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.7	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.4	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0	95.5	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.46	0.0020	0.5000	0	92.1	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.097	0.0050	0.1000	0	97.2	85	115			
Sodium	50	1.0	50.00	0	101	85	115			
Zinc	0.47	0.010	0.5000	0	94.9	85	115			

Sample ID LLLCS	SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: B28494		RunNo: 28494							
Prep Date:	Analysis Date: 8/27/2015		SeqNo: 861633		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	84.5	50	150			
Cadmium	0.0023	0.0020	0.002000	0	116	50	150			
Calcium	ND	1.0	0.5000	0	111	50	150			
Chromium	ND	0.0060	0.006000	0	92.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	LLLCS	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID: B28494			RunNo: 28494					
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 861633		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060	0.006000	0	99.3	50	150			
Iron	0.027	0.020	0.02000	0	137	50	150			
Magnesium	ND	1.0	0.5000	0	109	50	150			
Manganese	ND	0.0020	0.002000	0	99.5	50	150			
Potassium	ND	1.0	0.5000	0	115	50	150			
Silver	0.0054	0.0050	0.005000	0	107	50	150			
Sodium	ND	1.0	0.5000	0	109	50	150			
Zinc	ND	0.010	0.005000	0	113	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: B28648			RunNo: 28648					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867174		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867175		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.1	85	115			
Iron	0.52	0.020	0.5000	0	103	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867175		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	50	1.0	50.00	0	99.5	85	115			
Silver	0.093	0.0050	0.1000	0	93.1	85	115			
Sodium	51	1.0	50.00	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MB-21001	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 21001			RunNo: 28494					
Prep Date:	8/26/2015	Analysis Date: 8/27/2015			SeqNo: 861814		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21001		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861815		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.52	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Sample ID	LLCS-21001		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861816		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	102	50	150			
Cadmium	0.0021	0.0020	0.002000	0	105	50	150			
Chromium	ND	0.0060	0.006000	0	95.2	50	150			
Copper	0.0061	0.0060	0.006000	0	101	50	150			
Iron	0.028	0.020	0.02000	0	139	50	150			
Manganese	ND	0.0020	0.002000	0	97.5	50	150			
Silver	0.0060	0.0050	0.005000	0	119	50	150			
Zinc	ND	0.010	0.005000	0	120	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MB-21078		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21078		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865826		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21078		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21078		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865827		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.48	0.0060	0.5000	0	95.0	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.48	0.0020	0.5000	0	96.4	85	115			
Silver	0.090	0.0050	0.1000	0	90.2	85	115			
Zinc	0.49	0.010	0.5000	0	97.2	85	115			

Sample ID	LLLCS-21078		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21078		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865831		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	113	50	150			
Cadmium	ND	0.0020	0.002000	0	85.5	50	150			
Chromium	0.0077	0.0060	0.006000	0	128	50	150			
Copper	ND	0.0060	0.006000	0	95.0	50	150			
Iron	ND	0.020	0.02000	0	96.6	50	150			
Manganese	ND	0.0020	0.002000	0	98.0	50	150			
Silver	0.0052	0.0050	0.005000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	104	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B28496			RunNo: 28496						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 861742		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	95.7	85	115			
Uranium	0.012	0.00050	0.01250	0	93.6	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B28496			RunNo: 28496						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 861743		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00052	0.00050	0.0005000	0	105	50	150			
Uranium	ND	0.00050	0.0005000	0	98.0	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: B28496			RunNo: 28496						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 861744		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B28505			RunNo: 28505						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 861951		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.1	85	115			
Selenium	0.023	0.0010	0.02500	0	91.8	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B28505			RunNo: 28505						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 861952		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	92.1	50	150			
Selenium	ND	0.0010	0.001000	0	98.6	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: B28505			RunNo: 28505						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 861953		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: B28505		RunNo: 28505							
Prep Date:	Analysis Date: 8/27/2015		SeqNo: 861953		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: D28672		RunNo: 28672							
Prep Date:	Analysis Date: 9/4/2015		SeqNo: 868550		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.012	0.00050	0.01250	0	97.9	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.012	0.00050	0.01250	0	97.5	85	115			

Sample ID LLLCS	SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: D28672		RunNo: 28672							
Prep Date:	Analysis Date: 9/4/2015		SeqNo: 868553		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	97.0	50	150			
Lead	0.00051	0.00050	0.0005000	0	101	50	150			
Selenium	0.0010	0.0010	0.001000	0	104	50	150			
Uranium	ND	0.00050	0.0005000	0	98.5	50	150			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: D28672		RunNo: 28672							
Prep Date:	Analysis Date: 9/4/2015		SeqNo: 868556		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MB-21001		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862407		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21001		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862409		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID	MSLLCS-21001		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862411		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	95.0	50	150			
Lead	0.00054	0.00050	0.0005000	0	108	50	150			
Selenium	ND	0.0010	0.001000	0	95.2	50	150			
Uranium	0.00052	0.00050	0.0005000	0	105	50	150			

Sample ID	MB-21078	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 21078			RunNo: 28605					
Prep Date:	9/1/2015	Analysis Date: 9/1/2015			SeqNo: 865400			Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21078		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total						
Client ID:	LCSW		Batch ID: 21078		RunNo: 28605						
Prep Date:	9/1/2015		Analysis Date: 9/1/2015		SeqNo: 865403		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MSLCS-21078		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 21078		RunNo: 28605					
Prep Date:	9/1/2015		Analysis Date: 9/1/2015		SeqNo: 865403		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.024	0.0010	0.02500	0	94.3	85	115			
Uranium	0.014	0.00050	0.01250	0	108	85	115			

Sample ID	MSLLCS-21078		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 21078		RunNo: 28605					
Prep Date:	9/1/2015		Analysis Date: 9/1/2015		SeqNo: 865405		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	91.6	50	150			
Lead	0.00053	0.00050	0.0005000	0	106	50	150			
Selenium	ND	0.0010	0.001000	0	88.3	50	150			
Uranium	0.00054	0.00050	0.0005000	0	107	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MB-21011		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 21011		RunNo: 28507					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862013		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-21011		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 21011		RunNo: 28507					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862014		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID	1508B71-004FMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	PW-3		Batch ID: 21011		RunNo: 28507					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862016		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	103	75	125			

Sample ID	1508B71-004FMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	PW-3			Batch ID:	21011		RunNo:	28507			
Prep Date:	8/27/2015			Analysis Date:	8/27/2015		SeqNo:	862017		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0051	0.00020	0.005000	0	103	75	125	0.0525	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28469		RunNo: 28469							
Prep Date:	Analysis Date: 8/25/2015		SeqNo: 860464		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28469		RunNo: 28469							
Prep Date:	Analysis Date: 8/25/2015		SeqNo: 860465		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.9	90	110			
Chloride	4.8	0.50	5.000	0	96.9	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.0	90	110			
Bromide	2.4	0.10	2.500	0	97.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Sulfate	9.8	0.50	10.00	0	98.4	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28469		RunNo: 28469							
Prep Date:	Analysis Date: 8/26/2015		SeqNo: 860543		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28469		RunNo: 28469							
Prep Date:	Analysis Date: 8/26/2015		SeqNo: 860544		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.0	90	110			
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.8	90	110			
Bromide	2.4	0.10	2.500	0	95.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28469			RunNo: 28469						
Prep Date:	Analysis Date: 8/26/2015			SeqNo: 860544		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R28527			RunNo: 28527						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 862868		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28527			RunNo: 28527						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 862869		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R28527			RunNo: 28527						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 862924		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28527			RunNo: 28527						
Prep Date:	Analysis Date: 8/27/2015			SeqNo: 862925		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.9	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R28953			RunNo: 28953						
Prep Date:	Analysis Date: 9/17/2015			SeqNo: 878381		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28953			RunNo: 28953					
Prep Date:			Analysis Date: 9/17/2015			SeqNo: 878382		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110				

Sample ID	MB		SampType: mblk			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW		Batch ID: R28975			RunNo: 28975					
Prep Date:			Analysis Date: 9/18/2015			SeqNo: 878920		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Phosphorus, Orthophosphate (As P	ND	0.50									

Sample ID	LCS		SampType: lcs			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28975			RunNo: 28975					
Prep Date:			Analysis Date: 9/18/2015			SeqNo: 878921		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.9	90	110				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MB-20964		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20964		RunNo: 28473					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 860736		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.82		1.000		81.9	72	136			

Sample ID	LCS-20964		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20964		RunNo: 28473					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 860737		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	52.4	154			
Surr: DNOP	0.45		0.5000		90.3	72	136			

Sample ID	1508B71-001CMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	RW-2		Batch ID: 20964		RunNo: 28473					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 861456		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	14	1.0	5.000	7.354	130	41.3	177			
Surr: DNOP	0.44		0.5000		88.5	72	136			

Sample ID	1508B71-001CMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	RW-2		Batch ID:	20964		RunNo:	28473				
Prep Date:	8/25/2015		Analysis Date:	8/26/2015		SeqNo:	861461		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	13	1.0	5.000	7.354	120	-94.6	317	3.74	22.1		
Surr: DNOP	0.44		0.5000		88.9	72	136	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	RB3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A28455	RunNo:	28455					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	859926	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	RB3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A28455	RunNo:	28455					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	859926	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.0	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		99.8	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	A28455	RunNo:	28455					
Prep Date:		Analysis Date:	8/25/2015	SeqNo:	859934	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.5	70	130			
Toluene	18	1.0	20.00	0	92.3	70	130			
Chlorobenzene	18	1.0	20.00	0	91.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: A28455			RunNo: 28455						
Prep Date:	Analysis Date: 8/25/2015			SeqNo: 859934		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18	1.0	20.00	0	89.1	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.6		10.00		95.6	70	130			

Sample ID 1508b71-002a ms2	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: RW-5	Batch ID: A28455			RunNo: 28455						
Prep Date:	Analysis Date: 8/26/2015			SeqNo: 860003		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	530	5.0	100.0	432.7	95.9	70	130			E
Toluene	100	5.0	100.0	2.770	102	70	130			
Chlorobenzene	97	5.0	100.0	1.511	95.4	70	130			
1,1-Dichloroethene	100	5.0	100.0	0	102	70	130			
Trichloroethene (TCE)	110	5.0	100.0	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	50		50.00		100	70	130			
Surr: 4-Bromofluorobenzene	49		50.00		97.4	70	130			
Surr: Dibromofluoromethane	52		50.00		105	70	130			
Surr: Toluene-d8	47		50.00		93.7	70	130			

Sample ID 1508b71-002a msd2	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: RW-5	Batch ID: A28455			RunNo: 28455						
Prep Date:	Analysis Date: 8/26/2015			SeqNo: 860004		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	500	5.0	100.0	432.7	65.7	70	130	5.89	20	S
Toluene	110	5.0	100.0	2.770	105	70	130	2.88	20	
Chlorobenzene	100	5.0	100.0	1.511	98.4	70	130	3.06	20	
1,1-Dichloroethene	98	5.0	100.0	0	97.6	70	130	4.73	20	
Trichloroethene (TCE)	100	5.0	100.0	0	104	70	130	1.33	20	
Surr: 1,2-Dichloroethane-d4	48		50.00		96.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	46		50.00		92.4	70	130	0	0	
Surr: Dibromofluoromethane	52		50.00		104	70	130	0	0	
Surr: Toluene-d8	50		50.00		100	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28474	RunNo:	28474					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861384	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R28474				RunNo: 28474				
Prep Date:		Analysis Date: 8/26/2015				SeqNo: 861384	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R28474				RunNo: 28474				
Prep Date:		Analysis Date: 8/26/2015				SeqNo: 861385	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	19	1.0	20.00	0	97.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R28474			RunNo: 28474					
Prep Date:		Analysis Date: 8/26/2015			SeqNo: 861385		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.1		10.00		91.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	mb-20975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861180	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	mb-20975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861180	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		69.2	14.9	111			
Surr: Phenol-d5	130		200.0		64.9	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		76.1	15.7	154			
Surr: Nitrobenzene-d5	73		100.0		72.6	47.8	106			
Surr: 2-Fluorobiphenyl	69		100.0		69.4	21.3	123			
Surr: 4-Terphenyl-d14	130		100.0		125	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	lcs-20975		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20975		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861184		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	87	10	100.0	0	87.1	47.8	99.7			
4-Chloro-3-methylphenol	170	10	200.0	0	83.4	58.1	103			
2-Chlorophenol	180	10	200.0	0	90.2	49.5	96.8			
1,4-Dichlorobenzene	91	10	100.0	0	91.3	40.4	89.4			S
2,4-Dinitrotoluene	60	10	100.0	0	60.2	38.6	91.3			
N-Nitrosodi-n-propylamine	83	10	100.0	0	83.5	53.9	95.6			
4-Nitrophenol	170	10	200.0	0	84.6	26.4	108			
Pentachlorophenol	170	20	200.0	0	83.3	36.5	86.6			
Phenol	170	10	200.0	0	85.3	29.3	108			
Pyrene	130	10	100.0	0	132	45.7	100			S
1,2,4-Trichlorobenzene	100	10	100.0	0	102	39.3	94.5			S
Surr: 2-Fluorophenol	180		200.0		88.3	14.9	111			
Surr: Phenol-d5	180		200.0		88.6	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		98.3	15.7	154			
Surr: Nitrobenzene-d5	95		100.0		94.9	47.8	106			
Surr: 2-Fluorobiphenyl	93		100.0		93.1	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		112	14.3	135			

Sample ID	lcsd-20975		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20975		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861187		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	90.6	47.8	99.7	3.92	28.2	
4-Chloro-3-methylphenol	190	10	200.0	0	95.8	58.1	103	13.9	24.4	
2-Chlorophenol	190	10	200.0	0	92.6	49.5	96.8	2.70	28.1	
1,4-Dichlorobenzene	92	10	100.0	0	92.2	40.4	89.4	0.981	31.2	S
2,4-Dinitrotoluene	66	10	100.0	0	65.6	38.6	91.3	8.59	44.4	
N-Nitrosodi-n-propylamine	93	10	100.0	0	92.5	53.9	95.6	10.3	24.2	
4-Nitrophenol	170	10	200.0	0	83.0	26.4	108	1.84	36.6	
Pentachlorophenol	170	20	200.0	0	86.9	36.5	86.6	4.31	29.5	S
Phenol	190	10	200.0	0	93.8	29.3	108	9.48	30	
Pyrene	130	10	100.0	0	134	45.7	100	1.47	31	S
1,2,4-Trichlorobenzene	100	10	100.0	0	100	39.3	94.5	1.80	24	S
Surr: 2-Fluorophenol	180		200.0		88.5	14.9	111	0	0	
Surr: Phenol-d5	180		200.0		89.1	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	210		200.0		107	15.7	154	0	0	
Surr: Nitrobenzene-d5	96		100.0		95.9	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	95		100.0		95.0	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	lcscd-20975	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861187	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	110		100.0		115	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MB-20974		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 20974		RunNo: 28673					
Prep Date:	8/26/2015		Analysis Date: 8/31/2015		SeqNo: 868558		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB--20974		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 20974		RunNo: 28673					
Prep Date:	8/26/2015		Analysis Date: 8/31/2015		SeqNo: 868559		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-20974		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: 20974		RunNo: 28673					
Prep Date:	8/26/2015		Analysis Date: 8/31/2015		SeqNo: 868560		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	>253.10	2.0	198.0	0	0	84.6	115.4			S

Sample ID	LCSD-20974		SampType: LCSD		TestCode: SM5210B: BOD					
Client ID:	LCSS02		Batch ID: 20974		RunNo: 28673					
Prep Date:	8/26/2015		Analysis Date: 8/31/2015		SeqNo: 868561		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	>231.60	2.0	198.0	0	0	84.6	115.4	0	20	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID RB3	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: B28455		RunNo: 28455							
Prep Date:	Analysis Date: 8/26/2015		SeqNo: 860014		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		95.7	70	130			

Sample ID 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: B28455		RunNo: 28455							
Prep Date:	Analysis Date: 8/25/2015		SeqNo: 860022		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.4	80.6	122			
Surr: BFB	9.5		10.00		95.2	70	130			

Sample ID 1508B71-001B MS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: RW-2	Batch ID: B28455		RunNo: 28455							
Prep Date:	Analysis Date: 8/26/2015		SeqNo: 860068		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	170	10	100.0	81.52	90.6	53.8	128			
Surr: BFB	1900		2000		96.0	70	130			

Sample ID 1508B71-001B MSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: RW-2	Batch ID: B28455		RunNo: 28455							
Prep Date:	Analysis Date: 8/26/2015		SeqNo: 860080		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	170	10	100.0	81.52	90.8	53.8	128	0.116	20	
Surr: BFB	1900		2000		94.7	70	130	0	0	

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: A28474		RunNo: 28474							
Prep Date:	Analysis Date: 8/26/2015		SeqNo: 861434		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		96.1	70	130			

Sample ID 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: A28474		RunNo: 28474							
Prep Date:	Analysis Date: 8/26/2015		SeqNo: 861435		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	A28474	RunNo:	28474					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861435	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.4	80.6	122			
Surr: BFB	10		10.00		101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B71

22-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Annual

Sample ID	MB-20986		SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW		Batch ID: 20986		RunNo: 28497					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861745		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-20986		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW		Batch ID: 20986		RunNo: 28497					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861746		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508B71

RcptNo: 1

Received by/date:

CS

08/24/15

Logged By:

Ashley Gallegos

8/24/2015 2:42:00 PM

Ag

Completed By:

Ashley Gallegos

8/24/2015 3:44:24 PM

Ag

Reviewed By:

CS/mg

08/24/15 @ 1608

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☒

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

9/1

(-2 or +12 unless noted)

Adjusted?

Yes

Checked by:

JA

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 14, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3RD QTR (MKTF)

OrderNo.: 1508B79

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 7:00:00 AM

Lab ID: 1508B79-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
Benzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Toluene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Naphthalene	ND	2.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Acetone	ND	10		µg/L	1	8/26/2015 1:50:35 PM	R28492
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Bromoform	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Bromomethane	ND	3.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
2-Butanone	ND	10		µg/L	1	8/26/2015 1:50:35 PM	R28492
Carbon disulfide	ND	10		µg/L	1	8/26/2015 1:50:35 PM	R28492
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Chloroethane	ND	2.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Chloroform	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Chloromethane	ND	3.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 1:50:35 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 7:00:00 AM

Lab ID: 1508B79-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
2-Hexanone	ND	10		µg/L	1	8/26/2015 1:50:35 PM	R28492
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 1:50:35 PM	R28492
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Styrene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 1:50:35 PM	R28492
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 1:50:35 PM	R28492
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	1	8/26/2015 1:50:35 PM	R28492
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	8/26/2015 1:50:35 PM	R28492
Surr: Dibromofluoromethane	95.4	70-130		%REC	1	8/26/2015 1:50:35 PM	R28492
Surr: Toluene-d8	97.2	70-130		%REC	1	8/26/2015 1:50:35 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD QTR (MKTF)

Collection Date:

Lab ID: 1508B79-002

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
Benzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Toluene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Naphthalene	ND	2.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Acetone	ND	10		µg/L	1	8/26/2015 2:19:21 PM	R28492
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Bromoform	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Bromomethane	ND	3.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
2-Butanone	ND	10		µg/L	1	8/26/2015 2:19:21 PM	R28492
Carbon disulfide	ND	10		µg/L	1	8/26/2015 2:19:21 PM	R28492
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Chloroethane	ND	2.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Chloroform	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Chloromethane	ND	3.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 2:19:21 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD QTR (MKTF)

Collection Date:

Lab ID: 1508B79-002

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
2-Hexanone	ND	10		µg/L	1	8/26/2015 2:19:21 PM	R28492
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 2:19:21 PM	R28492
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Styrene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 2:19:21 PM	R28492
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 2:19:21 PM	R28492
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%REC	1	8/26/2015 2:19:21 PM	R28492
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	8/26/2015 2:19:21 PM	R28492
Surr: Dibromofluoromethane	99.6	70-130		%REC	1	8/26/2015 2:19:21 PM	R28492
Surr: Toluene-d8	97.5	70-130		%REC	1	8/26/2015 2:19:21 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 7:00:00 AM

Lab ID: 1508B79-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 6:57:40 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 6:57:40 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 6:57:40 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 6:57:40 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 7:00:00 AM

Lab ID: 1508B79-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 6:57:40 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Phenol	25	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 6:57:40 PM	20975
Surr: 2-Fluorophenol	77.7	14.9-111		%REC	1	8/26/2015 6:57:40 PM	20975
Surr: Phenol-d5	72.8	11.3-108		%REC	1	8/26/2015 6:57:40 PM	20975
Surr: 2,4,6-Tribromophenol	133	15.7-154		%REC	1	8/26/2015 6:57:40 PM	20975
Surr: Nitrobenzene-d5	119	47.8-106	S	%REC	1	8/26/2015 6:57:40 PM	20975
Surr: 2-Fluorobiphenyl	123	21.3-123	S	%REC	1	8/26/2015 6:57:40 PM	20975
Surr: 4-Terphenyl-d14	89.0	14.3-135		%REC	1	8/26/2015 6:57:40 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 4:50:00 PM

Lab ID: 1508B79-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:38:09 PM	D28672
Lead	ND	0.0025		mg/L	5	9/4/2015 4:38:09 PM	D28672
Selenium	ND	0.0050		mg/L	5	9/4/2015 4:38:09 PM	D28672
Uranium	0.013	0.0025		mg/L	5	9/4/2015 4:38:09 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 2:39:55 AM	R28469
Chloride	120	10		mg/L	20	8/26/2015 3:17:09 AM	R28469
Bromide	0.84	0.50		mg/L	5	8/26/2015 2:39:55 AM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 2:39:55 AM	R28469
Sulfate	48	2.5		mg/L	5	8/26/2015 2:39:55 AM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 12:46:46 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.37	0.0020		mg/L	1	9/3/2015 4:41:26 PM	A28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 4:41:26 PM	A28647
Calcium	100	1.0		mg/L	1	9/3/2015 4:41:26 PM	A28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 4:41:26 PM	A28647
Copper	ND	0.0060		mg/L	1	9/3/2015 4:41:26 PM	A28647
Iron	8.5	0.20	*	mg/L	10	9/3/2015 5:44:12 PM	A28647
Magnesium	23	1.0		mg/L	1	9/3/2015 4:41:26 PM	A28647
Manganese	1.9	0.020	*	mg/L	10	9/3/2015 5:44:12 PM	A28647
Potassium	1.9	1.0		mg/L	1	9/3/2015 4:41:26 PM	A28647
Silver	ND	0.0050		mg/L	1	9/3/2015 4:41:26 PM	A28647
Sodium	310	10		mg/L	10	9/3/2015 5:44:12 PM	A28647
Zinc	ND	0.010		mg/L	1	9/3/2015 4:41:26 PM	A28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	5.6	0.020	*	mg/L	10	9/2/2015 5:10:09 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 2:52:03 PM	21084
Chromium	0.10	0.0060	*	mg/L	1	9/2/2015 2:52:03 PM	21084
Copper	0.15	0.0060		mg/L	1	9/2/2015 2:52:03 PM	21084
Iron	87	2.0	*	mg/L	100	9/2/2015 5:11:57 PM	21084
Manganese	9.1	0.020	*	mg/L	10	9/2/2015 5:10:09 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 2:52:03 PM	21084
Zinc	0.21	0.010		mg/L	1	9/2/2015 3:46:00 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0076	0.0050		mg/L	5	9/10/2015 5:29:36 PM	21084
Lead	0.24	0.010	*	mg/L	20	9/10/2015 8:30:25 PM	21084
Selenium	0.0074	0.0050		mg/L	5	9/10/2015 5:29:36 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 4:50:00 PM

Lab ID: 1508B79-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.031	0.0025	*	mg/L	5	9/10/2015 5:29:36 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:53:27 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	9.3	1.0	D	mg/L	20	8/26/2015 3:16:58 PM	B28492
Surr: BFB	99.4	70-130	D	%REC	20	8/26/2015 3:16:58 PM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 11:29:35 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 11:29:35 PM	20964
Surr: DNOP	93.8	72-136		%REC	1	8/26/2015 11:29:35 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 7:27:29 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 4:50:00 PM

Lab ID: 1508B79-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 7:27:29 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 7:27:29 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 7:27:29 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
1-Methylnaphthalene	18	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 7:27:29 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 4:50:00 PM

Lab ID: 1508B79-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	14	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 7:27:29 PM	20975
Surr: 2-Fluorophenol	65.4	14.9-111		%REC	1	8/26/2015 7:27:29 PM	20975
Surr: Phenol-d5	57.2	11.3-108		%REC	1	8/26/2015 7:27:29 PM	20975
Surr: 2,4,6-Tribromophenol	103	15.7-154		%REC	1	8/26/2015 7:27:29 PM	20975
Surr: Nitrobenzene-d5	81.1	47.8-106		%REC	1	8/26/2015 7:27:29 PM	20975
Surr: 2-Fluorobiphenyl	81.8	21.3-123		%REC	1	8/26/2015 7:27:29 PM	20975
Surr: 4-Terphenyl-d14	71.5	14.3-135		%REC	1	8/26/2015 7:27:29 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	1200	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Toluene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Ethylbenzene	97	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Methyl tert-butyl ether (MTBE)	4800	200	D	µg/L	200	8/26/2015 2:48:09 PM	R28492
1,2,4-Trimethylbenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,3,5-Trimethylbenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2-Dichloroethane (EDC)	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2-Dibromoethane (EDB)	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Naphthalene	ND	40	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1-Methylnaphthalene	ND	80	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
2-Methylnaphthalene	ND	80	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Acetone	ND	200	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Bromobenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Bromodichloromethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Bromoform	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Bromomethane	ND	60	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
2-Butanone	ND	200	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Carbon disulfide	ND	200	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Carbon Tetrachloride	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Chlorobenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Chloroethane	ND	40	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Chloroform	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Chloromethane	ND	60	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
2-Chlorotoluene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
4-Chlorotoluene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
cis-1,2-DCE	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 4:50:00 PM

Lab ID: 1508B79-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2-Dibromo-3-chloropropane	ND	40	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Dibromochloromethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Dibromomethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2-Dichlorobenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,3-Dichlorobenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,4-Dichlorobenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Dichlorodifluoromethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,1-Dichloroethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,1-Dichloroethene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2-Dichloropropane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,3-Dichloropropane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
2,2-Dichloropropane	ND	40	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,1-Dichloropropene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Hexachlorobutadiene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
2-Hexanone	ND	200	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Isopropylbenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
4-Isopropyltoluene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
4-Methyl-2-pentanone	ND	200	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Methylene Chloride	ND	60	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
n-Butylbenzene	ND	60	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
n-Propylbenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
sec-Butylbenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Styrene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
tert-Butylbenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,1,1,2-Tetrachloroethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,1,2,2-Tetrachloroethane	ND	40	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Tetrachloroethene (PCE)	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
trans-1,2-DCE	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
trans-1,3-Dichloropropene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2,3-Trichlorobenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2,4-Trichlorobenzene	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,1,1-Trichloroethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,1,2-Trichloroethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Trichloroethene (TCE)	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Trichlorofluoromethane	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
1,2,3-Trichloropropane	ND	40	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Vinyl chloride	ND	20	D	µg/L	20	8/26/2015 3:16:58 PM	R28492
Xylenes, Total	ND	30	D	µg/L	20	8/26/2015 3:16:58 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 4:50:00 PM

Lab ID: 1508B79-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	93.8	70-130	D	%REC	20	8/26/2015 3:16:58 PM	R28492
Surr: 4-Bromofluorobenzene	96.3	70-130	D	%REC	20	8/26/2015 3:16:58 PM	R28492
Surr: Dibromofluoromethane	92.4	70-130	D	%REC	20	8/26/2015 3:16:58 PM	R28492
Surr: Toluene-d8	99.8	70-130	D	%REC	20	8/26/2015 3:16:58 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:30:00 AM

Lab ID: 1508B79-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:41:12 PM	D28672
Lead	0.0027	0.0025		mg/L	5	9/4/2015 4:41:12 PM	D28672
Selenium	ND	0.0050		mg/L	5	9/4/2015 4:41:12 PM	D28672
Uranium	0.035	0.0025	*	mg/L	5	9/4/2015 4:41:12 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 3:29:33 AM	R28469
Chloride	850	25		mg/L	50	9/2/2015 11:07:24 PM	R28635
Bromide	1.6	0.50		mg/L	5	8/26/2015 3:29:33 AM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 3:29:33 AM	R28469
Sulfate	72	2.5		mg/L	5	8/26/2015 3:29:33 AM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 12:59:11 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.31	0.0020		mg/L	1	9/3/2015 4:43:05 PM	A28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 4:43:05 PM	A28647
Calcium	160	5.0		mg/L	5	9/3/2015 5:46:10 PM	A28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 4:43:05 PM	A28647
Copper	ND	0.0060		mg/L	1	9/3/2015 4:43:05 PM	A28647
Iron	4.1	0.10	*	mg/L	5	9/3/2015 5:46:10 PM	A28647
Magnesium	26	1.0		mg/L	1	9/3/2015 4:43:05 PM	A28647
Manganese	1.5	0.010	*	mg/L	5	9/3/2015 5:46:10 PM	A28647
Potassium	4.8	1.0		mg/L	1	9/3/2015 4:43:05 PM	A28647
Silver	ND	0.0050		mg/L	1	9/3/2015 4:43:05 PM	A28647
Sodium	610	10		mg/L	10	9/3/2015 5:48:12 PM	A28647
Zinc	ND	0.010		mg/L	1	9/3/2015 4:43:05 PM	A28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.3	0.010		mg/L	5	9/2/2015 5:13:48 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 2:53:52 PM	21084
Chromium	0.025	0.0060		mg/L	1	9/2/2015 2:53:52 PM	21084
Copper	0.037	0.0060		mg/L	1	9/2/2015 2:53:52 PM	21084
Iron	22	1.0	*	mg/L	50	9/2/2015 5:21:14 PM	21084
Manganese	3.3	0.010	*	mg/L	5	9/2/2015 5:13:48 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 2:53:52 PM	21084
Zinc	0.060	0.010		mg/L	1	9/2/2015 3:47:49 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0057	0.0010		mg/L	1	9/3/2015 7:44:32 PM	21084
Lead	0.040	0.0025	*	mg/L	5	9/10/2015 5:32:37 PM	21084
Selenium	0.0067	0.0010		mg/L	1	9/3/2015 7:44:32 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:30:00 AM

Lab ID: 1508B79-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.042	0.0025	*	mg/L	5	9/10/2015 5:32:37 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:55:28 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	9.5	1.0	D	mg/L	20	8/26/2015 5:12:03 PM	B28492
Surr: BFB	104	70-130	D	%REC	20	8/26/2015 5:12:03 PM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2015 9:21:09 AM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2015 9:21:09 AM	20964
Surr: DNOP	115	72-136		%REC	1	8/27/2015 9:21:09 AM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 7:57:20 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:30:00 AM

Lab ID: 1508B79-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 7:57:20 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 7:57:20 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 7:57:20 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 7:57:20 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:30:00 AM

Lab ID: 1508B79-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 7:57:20 PM	20975
Surr: 2-Fluorophenol	56.5	14.9-111		%REC	1	8/26/2015 7:57:20 PM	20975
Surr: Phenol-d5	58.7	11.3-108		%REC	1	8/26/2015 7:57:20 PM	20975
Surr: 2,4,6-Tribromophenol	94.7	15.7-154		%REC	1	8/26/2015 7:57:20 PM	20975
Surr: Nitrobenzene-d5	87.4	47.8-106		%REC	1	8/26/2015 7:57:20 PM	20975
Surr: 2-Fluorobiphenyl	86.3	21.3-123		%REC	1	8/26/2015 7:57:20 PM	20975
Surr: 4-Terphenyl-d14	69.1	14.3-135		%REC	1	8/26/2015 7:57:20 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	2700	200	D	µg/L	200	8/26/2015 4:43:12 PM	R28492
Toluene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Ethylbenzene	56	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Methyl tert-butyl ether (MTBE)	200	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2,4-Trimethylbenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,3,5-Trimethylbenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2-Dichloroethane (EDC)	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2-Dibromoethane (EDB)	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Naphthalene	ND	40	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1-Methylnaphthalene	ND	80	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
2-Methylnaphthalene	ND	80	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Acetone	ND	200	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Bromobenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Bromodichloromethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Bromoform	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Bromomethane	ND	60	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
2-Butanone	ND	200	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Carbon disulfide	ND	200	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Carbon Tetrachloride	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Chlorobenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Chloroethane	ND	40	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Chloroform	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Chloromethane	ND	60	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
2-Chlorotoluene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
4-Chlorotoluene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
cis-1,2-DCE	28	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:30:00 AM

Lab ID: 1508B79-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2-Dibromo-3-chloropropane	ND	40	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Dibromochloromethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Dibromomethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2-Dichlorobenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,3-Dichlorobenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,4-Dichlorobenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Dichlorodifluoromethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,1-Dichloroethane	110	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,1-Dichloroethene	49	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2-Dichloropropane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,3-Dichloropropane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
2,2-Dichloropropane	ND	40	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,1-Dichloropropene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Hexachlorobutadiene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
2-Hexanone	ND	200	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Isopropylbenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
4-Isopropyltoluene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
4-Methyl-2-pentanone	ND	200	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Methylene Chloride	ND	60	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
n-Butylbenzene	ND	60	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
n-Propylbenzene	28	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
sec-Butylbenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Styrene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
tert-Butylbenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,1,1,2-Tetrachloroethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,1,2,2-Tetrachloroethane	ND	40	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Tetrachloroethene (PCE)	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
trans-1,2-DCE	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
trans-1,3-Dichloropropene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2,3-Trichlorobenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2,4-Trichlorobenzene	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,1,1-Trichloroethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,1,2-Trichloroethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Trichloroethene (TCE)	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Trichlorofluoromethane	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
1,2,3-Trichloropropane	ND	40	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Vinyl chloride	ND	20	D	µg/L	20	8/26/2015 5:12:03 PM	R28492
Xylenes, Total	ND	30	D	µg/L	20	8/26/2015 5:12:03 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:30:00 AM

Lab ID: 1508B79-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	95.2	70-130	D	%REC	20	8/26/2015 5:12:03 PM	R28492
Surr: 4-Bromofluorobenzene	99.3	70-130	D	%REC	20	8/26/2015 5:12:03 PM	R28492
Surr: Dibromofluoromethane	93.6	70-130	D	%REC	20	8/26/2015 5:12:03 PM	R28492
Surr: Toluene-d8	101	70-130	D	%REC	20	8/26/2015 5:12:03 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:09:00 AM

Lab ID: 1508B79-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:44:15 PM	D28672
Lead	ND	0.0025		mg/L	5	9/4/2015 4:44:15 PM	D28672
Selenium	ND	0.0050		mg/L	5	9/4/2015 4:44:15 PM	D28672
Uranium	0.092	0.0025	*	mg/L	5	9/4/2015 4:44:15 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 3:54:23 AM	R28469
Chloride	1800	100		mg/L	200	9/2/2015 11:19:48 PM	R28635
Bromide	1.4	0.50		mg/L	5	8/26/2015 3:54:23 AM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 3:54:23 AM	R28469
Sulfate	220	2.5		mg/L	5	8/26/2015 3:54:23 AM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 1:11:36 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	9/3/2015 4:44:50 PM	A28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 4:44:50 PM	A28647
Calcium	250	5.0		mg/L	5	9/3/2015 5:50:10 PM	A28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 4:44:50 PM	A28647
Copper	ND	0.0060		mg/L	1	9/3/2015 4:44:50 PM	A28647
Iron	0.57	0.020	*	mg/L	1	9/3/2015 4:44:50 PM	A28647
Magnesium	39	1.0		mg/L	1	9/3/2015 4:44:50 PM	A28647
Manganese	1.1	0.010	*	mg/L	5	9/3/2015 5:50:10 PM	A28647
Potassium	4.6	1.0		mg/L	1	9/3/2015 4:44:50 PM	A28647
Silver	ND	0.0050		mg/L	1	9/3/2015 4:44:50 PM	A28647
Sodium	1100	50		mg/L	50	9/3/2015 5:52:05 PM	A28647
Zinc	ND	0.010		mg/L	1	9/3/2015 4:44:50 PM	A28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.23	0.0020		mg/L	1	9/2/2015 2:55:46 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 2:55:46 PM	21084
Chromium	ND	0.0060		mg/L	1	9/2/2015 2:55:46 PM	21084
Copper	0.010	0.0060		mg/L	1	9/2/2015 2:55:46 PM	21084
Iron	5.4	0.20	*	mg/L	10	9/2/2015 5:23:11 PM	21084
Manganese	1.4	0.020	*	mg/L	10	9/2/2015 5:23:11 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 2:55:46 PM	21084
Zinc	0.022	0.010		mg/L	1	9/2/2015 3:49:41 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0053	0.0010		mg/L	1	9/3/2015 7:47:32 PM	21084
Lead	0.0067	0.0025		mg/L	5	9/10/2015 5:35:37 PM	21084
Selenium	0.0062	0.0010		mg/L	1	9/3/2015 7:47:32 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:09:00 AM

Lab ID: 1508B79-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.092	0.0025	*	mg/L	5	9/10/2015 5:35:37 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:03:27 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	1.5	0.25	D	mg/L	5	8/26/2015 7:06:54 PM	B28492
Surr: BFB	99.8	70-130	D	%REC	5	8/26/2015 7:06:54 PM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2015 12:12:41 AM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2015 12:12:41 AM	20964
Surr: DNOP	92.4	72-136		%REC	1	8/27/2015 12:12:41 AM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 8:27:13 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:09:00 AM

Lab ID: 1508B79-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 8:27:13 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 8:27:13 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 8:27:13 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 8:27:13 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:09:00 AM

Lab ID: 1508B79-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	18	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 8:27:13 PM	20975
Surr: 2-Fluorophenol	59.1	14.9-111		%REC	1	8/26/2015 8:27:13 PM	20975
Surr: Phenol-d5	70.2	11.3-108		%REC	1	8/26/2015 8:27:13 PM	20975
Surr: 2,4,6-Tribromophenol	102	15.7-154		%REC	1	8/26/2015 8:27:13 PM	20975
Surr: Nitrobenzene-d5	111	47.8-106	S	%REC	1	8/26/2015 8:27:13 PM	20975
Surr: 2-Fluorobiphenyl	106	21.3-123		%REC	1	8/26/2015 8:27:13 PM	20975
Surr: 4-Terphenyl-d14	80.9	14.3-135		%REC	1	8/26/2015 8:27:13 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	380	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Toluene	5.0	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Ethylbenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Methyl tert-butyl ether (MTBE)	65	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2,4-Trimethylbenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,3,5-Trimethylbenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2-Dichloroethane (EDC)	10	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2-Dibromoethane (EDB)	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Naphthalene	ND	10	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1-Methylnaphthalene	ND	20	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
2-Methylnaphthalene	ND	20	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Acetone	ND	50	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Bromobenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Bromodichloromethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Bromoform	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Bromomethane	ND	15	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
2-Butanone	ND	50	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Carbon disulfide	ND	50	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Carbon Tetrachloride	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Chlorobenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Chloroethane	ND	10	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Chloroform	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Chloromethane	ND	15	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
2-Chlorotoluene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
4-Chlorotoluene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
cis-1,2-DCE	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:09:00 AM

Lab ID: 1508B79-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2-Dibromo-3-chloropropane	ND	10	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Dibromochloromethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Dibromomethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2-Dichlorobenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,3-Dichlorobenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,4-Dichlorobenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Dichlorodifluoromethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,1-Dichloroethane	70	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,1-Dichloroethene	77	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2-Dichloropropane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,3-Dichloropropane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
2,2-Dichloropropane	ND	10	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,1-Dichloropropene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Hexachlorobutadiene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
2-Hexanone	ND	50	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Isopropylbenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
4-Isopropyltoluene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
4-Methyl-2-pentanone	ND	50	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Methylene Chloride	ND	15	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
n-Butylbenzene	ND	15	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
n-Propylbenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
sec-Butylbenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Styrene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
tert-Butylbenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,1,1,2-Tetrachloroethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,1,2,2-Tetrachloroethane	ND	10	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Tetrachloroethene (PCE)	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
trans-1,2-DCE	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
trans-1,3-Dichloropropene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2,3-Trichlorobenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2,4-Trichlorobenzene	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,1,1-Trichloroethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,1,2-Trichloroethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Trichloroethene (TCE)	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Trichlorofluoromethane	ND	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
1,2,3-Trichloropropane	ND	10	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Vinyl chloride	6.3	5.0	D	µg/L	5	8/26/2015 7:06:54 PM	R28492
Xylenes, Total	ND	7.5	D	µg/L	5	8/26/2015 7:06:54 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 10:09:00 AM

Lab ID: 1508B79-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	94.9	70-130	D	%REC	5	8/26/2015 7:06:54 PM	R28492
Surr: 4-Bromofluorobenzene	108	70-130	D	%REC	5	8/26/2015 7:06:54 PM	R28492
Surr: Dibromofluoromethane	93.1	70-130	D	%REC	5	8/26/2015 7:06:54 PM	R28492
Surr: Toluene-d8	97.9	70-130	D	%REC	5	8/26/2015 7:06:54 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:00:00 AM

Lab ID: 1508B79-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:47:19 PM	D28672
Lead	ND	0.0025		mg/L	5	9/4/2015 4:47:19 PM	D28672
Selenium	ND	0.010		mg/L	10	9/4/2015 6:18:28 PM	D28672
Uranium	0.069	0.0025	*	mg/L	5	9/4/2015 4:47:19 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.81	0.50		mg/L	5	8/26/2015 4:19:13 AM	R28469
Chloride	2700	100		mg/L	200	9/2/2015 11:32:13 PM	R28635
Bromide	1.9	0.50		mg/L	5	8/26/2015 4:19:13 AM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 4:19:13 AM	R28469
Sulfate	330	10		mg/L	20	8/26/2015 4:31:37 AM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 1:24:00 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.092	0.0020		mg/L	1	9/3/2015 4:52:23 PM	A28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 4:52:23 PM	A28647
Calcium	170	5.0		mg/L	5	9/3/2015 5:54:03 PM	A28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 4:52:23 PM	A28647
Copper	ND	0.0060		mg/L	1	9/3/2015 4:52:23 PM	A28647
Iron	1.8	0.10	*	mg/L	5	9/3/2015 5:54:03 PM	A28647
Magnesium	27	1.0		mg/L	1	9/3/2015 4:52:23 PM	A28647
Manganese	0.49	0.0020	*	mg/L	1	9/3/2015 4:52:23 PM	A28647
Potassium	12	1.0		mg/L	1	9/3/2015 4:52:23 PM	A28647
Silver	ND	0.0050		mg/L	1	9/3/2015 4:52:23 PM	A28647
Sodium	1900	50		mg/L	50	9/3/2015 5:56:09 PM	A28647
Zinc	ND	0.010		mg/L	1	9/3/2015 4:52:23 PM	A28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.18	0.0020		mg/L	1	9/2/2015 2:57:35 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 2:57:35 PM	21084
Chromium	ND	0.0060		mg/L	1	9/2/2015 2:57:35 PM	21084
Copper	ND	0.0060		mg/L	1	9/2/2015 2:57:35 PM	21084
Iron	6.2	0.20	*	mg/L	10	9/2/2015 5:25:05 PM	21084
Manganese	0.70	0.0020	*	mg/L	1	9/2/2015 2:57:35 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 2:57:35 PM	21084
Zinc	0.027	0.010		mg/L	1	9/2/2015 3:51:32 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/10/2015 5:38:38 PM	21084
Lead	0.0064	0.0025		mg/L	5	9/10/2015 5:38:38 PM	21084
Selenium	0.0056	0.0050		mg/L	5	9/10/2015 5:38:38 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:00:00 AM

Lab ID: 1508B79-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.071	0.0025	*	mg/L	5	9/10/2015 5:38:38 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:05:34 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	0.064	0.050		mg/L	1	8/26/2015 7:35:39 PM	B28492
Surr: BFB	99.4	70-130		%REC	1	8/26/2015 7:35:39 PM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2015 12:34:09 AM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2015 12:34:09 AM	20964
Surr: DNOP	92.4	72-136		%REC	1	8/27/2015 12:34:09 AM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 8:57:10 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:00:00 AM

Lab ID: 1508B79-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 8:57:10 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 8:57:10 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 8:57:10 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 8:57:10 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:00:00 AM

Lab ID: 1508B79-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 8:57:10 PM	20975
Surr: 2-Fluorophenol	70.5	14.9-111		%REC	1	8/26/2015 8:57:10 PM	20975
Surr: Phenol-d5	68.2	11.3-108		%REC	1	8/26/2015 8:57:10 PM	20975
Surr: 2,4,6-Tribromophenol	119	15.7-154		%REC	1	8/26/2015 8:57:10 PM	20975
Surr: Nitrobenzene-d5	112	47.8-106	S	%REC	1	8/26/2015 8:57:10 PM	20975
Surr: 2-Fluorobiphenyl	101	21.3-123		%REC	1	8/26/2015 8:57:10 PM	20975
Surr: 4-Terphenyl-d14	82.6	14.3-135		%REC	1	8/26/2015 8:57:10 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Toluene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Methyl tert-butyl ether (MTBE)	33	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Naphthalene	ND	2.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Acetone	ND	10		µg/L	1	8/26/2015 7:35:39 PM	R28492
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Bromoform	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Bromomethane	ND	3.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
2-Butanone	ND	10		µg/L	1	8/26/2015 7:35:39 PM	R28492
Carbon disulfide	ND	10		µg/L	1	8/26/2015 7:35:39 PM	R28492
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Chloroethane	ND	2.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Chloroform	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Chloromethane	ND	3.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:00:00 AM

Lab ID: 1508B79-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,1-Dichloroethane	1.8	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
2-Hexanone	ND	10		µg/L	1	8/26/2015 7:35:39 PM	R28492
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 7:35:39 PM	R28492
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Styrene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 7:35:39 PM	R28492
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 7:35:39 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:00:00 AM

Lab ID: 1508B79-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	8/26/2015 7:35:39 PM	R28492
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	8/26/2015 7:35:39 PM	R28492
Surr: Dibromofluoromethane	96.7	70-130		%REC	1	8/26/2015 7:35:39 PM	R28492
Surr: Toluene-d8	95.2	70-130		%REC	1	8/26/2015 7:35:39 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:44:00 AM

Lab ID: 1508B79-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:50:22 PM	D28672
Lead	ND	0.0025		mg/L	5	9/4/2015 4:50:22 PM	D28672
Selenium	0.0081	0.0050		mg/L	5	9/4/2015 4:50:22 PM	D28672
Uranium	0.15	0.0050	*	mg/L	10	9/4/2015 6:21:31 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.86	0.50		mg/L	5	8/26/2015 5:08:51 AM	R28469
Chloride	520	25		mg/L	50	9/2/2015 11:44:37 PM	R28635
Bromide	2.5	0.50		mg/L	5	8/26/2015 5:08:51 AM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 5:08:51 AM	R28469
Sulfate	150	2.5		mg/L	5	8/26/2015 5:08:51 AM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 1:36:25 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.082	0.0020		mg/L	1	9/3/2015 4:54:26 PM	A28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 4:54:26 PM	A28647
Calcium	48	1.0		mg/L	1	9/3/2015 4:54:26 PM	A28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 4:54:26 PM	A28647
Copper	ND	0.0060		mg/L	1	9/3/2015 4:54:26 PM	A28647
Iron	0.19	0.020		mg/L	1	9/3/2015 4:54:26 PM	A28647
Magnesium	9.2	1.0		mg/L	1	9/3/2015 4:54:26 PM	A28647
Manganese	0.018	0.0020		mg/L	1	9/3/2015 4:54:26 PM	A28647
Potassium	3.2	1.0		mg/L	1	9/3/2015 4:54:26 PM	A28647
Silver	ND	0.0050		mg/L	1	9/3/2015 4:54:26 PM	A28647
Sodium	620	10		mg/L	10	9/3/2015 5:58:01 PM	A28647
Zinc	ND	0.010		mg/L	1	9/3/2015 4:54:26 PM	A28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.18	0.0020		mg/L	1	9/2/2015 2:59:32 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 2:59:32 PM	21084
Chromium	ND	0.0060		mg/L	1	9/2/2015 2:59:32 PM	21084
Copper	0.0077	0.0060		mg/L	1	9/2/2015 2:59:32 PM	21084
Iron	4.8	0.20	*	mg/L	10	9/2/2015 5:27:06 PM	21084
Manganese	0.20	0.0020	*	mg/L	1	9/2/2015 2:59:32 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 2:59:32 PM	21084
Zinc	0.020	0.010		mg/L	1	9/2/2015 3:53:24 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/10/2015 5:41:38 PM	21084
Lead	0.0050	0.00050		mg/L	1	9/3/2015 7:53:33 PM	21084
Selenium	ND	0.010		mg/L	10	9/10/2015 5:41:38 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:44:00 AM

Lab ID: 1508B79-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.17	0.0050	*	mg/L	10	9/10/2015 5:41:38 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:11:59 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/26/2015 8:04:29 PM	B28492
Surr: BFB	102	70-130		%REC	1	8/26/2015 8:04:29 PM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2015 12:55:47 AM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2015 12:55:47 AM	20964
Surr: DNOP	90.3	72-136		%REC	1	8/27/2015 12:55:47 AM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 9:27:11 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:44:00 AM

Lab ID: 1508B79-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 9:27:11 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 9:27:11 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 9:27:11 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 9:27:11 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:44:00 AM

Lab ID: 1508B79-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 9:27:11 PM	20975
Surr: 2-Fluorophenol	55.3	14.9-111		%REC	1	8/26/2015 9:27:11 PM	20975
Surr: Phenol-d5	52.7	11.3-108		%REC	1	8/26/2015 9:27:11 PM	20975
Surr: 2,4,6-Tribromophenol	97.0	15.7-154		%REC	1	8/26/2015 9:27:11 PM	20975
Surr: Nitrobenzene-d5	81.0	47.8-106		%REC	1	8/26/2015 9:27:11 PM	20975
Surr: 2-Fluorobiphenyl	82.0	21.3-123		%REC	1	8/26/2015 9:27:11 PM	20975
Surr: 4-Terphenyl-d14	74.1	14.3-135		%REC	1	8/26/2015 9:27:11 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Toluene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Methyl tert-butyl ether (MTBE)	1.4	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Naphthalene	ND	2.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Acetone	ND	10		µg/L	1	8/26/2015 8:04:29 PM	R28492
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Bromoform	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Bromomethane	ND	3.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
2-Butanone	ND	10		µg/L	1	8/26/2015 8:04:29 PM	R28492
Carbon disulfide	ND	10		µg/L	1	8/26/2015 8:04:29 PM	R28492
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Chloroethane	ND	2.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Chloroform	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Chloromethane	ND	3.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:44:00 AM

Lab ID: 1508B79-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
2-Hexanone	ND	10		µg/L	1	8/26/2015 8:04:29 PM	R28492
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 8:04:29 PM	R28492
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Styrene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 8:04:29 PM	R28492
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 8:04:29 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:44:00 AM

Lab ID: 1508B79-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	1	8/26/2015 8:04:29 PM	R28492
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/26/2015 8:04:29 PM	R28492
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	8/26/2015 8:04:29 PM	R28492
Surr: Toluene-d8	96.2	70-130		%REC	1	8/26/2015 8:04:29 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:04:00 AM

Lab ID: 1508B79-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:53:25 PM	D28672
Lead	ND	0.0025		mg/L	5	9/4/2015 4:53:25 PM	D28672
Selenium	ND	0.0050		mg/L	5	9/4/2015 4:53:25 PM	D28672
Uranium	0.018	0.0025		mg/L	5	9/4/2015 4:53:25 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.83	0.50		mg/L	5	8/26/2015 5:33:40 AM	R28469
Chloride	95	10		mg/L	20	8/26/2015 5:46:04 AM	R28469
Bromide	ND	0.50		mg/L	5	8/26/2015 5:33:40 AM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 5:33:40 AM	R28469
Sulfate	440	10		mg/L	20	8/26/2015 5:46:04 AM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 2:26:03 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.041	0.0020		mg/L	1	9/3/2015 4:56:24 PM	A28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 4:56:24 PM	A28647
Calcium	65	1.0		mg/L	1	9/3/2015 4:56:24 PM	A28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 4:56:24 PM	A28647
Copper	ND	0.0060		mg/L	1	9/3/2015 4:56:24 PM	A28647
Iron	0.073	0.020		mg/L	1	9/3/2015 4:56:24 PM	A28647
Magnesium	9.1	1.0		mg/L	1	9/3/2015 4:56:24 PM	A28647
Manganese	0.49	0.0020	*	mg/L	1	9/3/2015 4:56:24 PM	A28647
Potassium	ND	1.0		mg/L	1	9/3/2015 4:56:24 PM	A28647
Silver	ND	0.0050		mg/L	1	9/3/2015 4:56:24 PM	A28647
Sodium	530	10		mg/L	10	9/3/2015 5:59:56 PM	A28647
Zinc	ND	0.010		mg/L	1	9/3/2015 4:56:24 PM	A28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	9/2/2015 3:01:14 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 3:01:14 PM	21084
Chromium	ND	0.0060		mg/L	1	9/2/2015 3:01:14 PM	21084
Copper	0.011	0.0060		mg/L	1	9/2/2015 3:01:14 PM	21084
Iron	3.9	0.20	*	mg/L	10	9/2/2015 5:29:03 PM	21084
Manganese	0.60	0.0020	*	mg/L	1	9/2/2015 3:01:14 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 3:01:14 PM	21084
Zinc	0.016	0.010		mg/L	1	9/2/2015 3:55:06 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0021	0.0010		mg/L	1	9/3/2015 7:56:34 PM	21084
Lead	0.0028	0.00050		mg/L	1	9/3/2015 7:56:34 PM	21084
Selenium	0.0022	0.0010		mg/L	1	9/3/2015 7:56:34 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:04:00 AM

Lab ID: 1508B79-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.020	0.00050		mg/L	1	9/3/2015 7:56:34 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:14:07 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/26/2015 8:33:13 PM	B28492
Surr: BFB	101	70-130		%REC	1	8/26/2015 8:33:13 PM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2015 1:17:11 AM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2015 1:17:11 AM	20964
Surr: DNOP	89.3	72-136		%REC	1	8/27/2015 1:17:11 AM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 9:57:13 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:04:00 AM

Lab ID: 1508B79-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 9:57:13 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 9:57:13 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 9:57:13 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 9:57:13 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:04:00 AM

Lab ID: 1508B79-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 9:57:13 PM	20975
Surr: 2-Fluorophenol	65.5	14.9-111		%REC	1	8/26/2015 9:57:13 PM	20975
Surr: Phenol-d5	62.9	11.3-108		%REC	1	8/26/2015 9:57:13 PM	20975
Surr: 2,4,6-Tribromophenol	116	15.7-154		%REC	1	8/26/2015 9:57:13 PM	20975
Surr: Nitrobenzene-d5	96.2	47.8-106		%REC	1	8/26/2015 9:57:13 PM	20975
Surr: 2-Fluorobiphenyl	96.6	21.3-123		%REC	1	8/26/2015 9:57:13 PM	20975
Surr: 4-Terphenyl-d14	84.9	14.3-135		%REC	1	8/26/2015 9:57:13 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Toluene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Methyl tert-butyl ether (MTBE)	11	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Naphthalene	ND	2.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Acetone	ND	10		µg/L	1	8/26/2015 8:33:13 PM	R28492
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Bromoform	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Bromomethane	ND	3.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
2-Butanone	ND	10		µg/L	1	8/26/2015 8:33:13 PM	R28492
Carbon disulfide	ND	10		µg/L	1	8/26/2015 8:33:13 PM	R28492
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Chloroethane	ND	2.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Chloroform	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Chloromethane	ND	3.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:04:00 AM

Lab ID: 1508B79-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
2-Hexanone	ND	10		µg/L	1	8/26/2015 8:33:13 PM	R28492
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 8:33:13 PM	R28492
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Styrene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 8:33:13 PM	R28492
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 8:33:13 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 9:04:00 AM

Lab ID: 1508B79-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	8/26/2015 8:33:13 PM	R28492
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	8/26/2015 8:33:13 PM	R28492
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	8/26/2015 8:33:13 PM	R28492
Surr: Toluene-d8	98.7	70-130		%REC	1	8/26/2015 8:33:13 PM	R28492

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:42:00 AM

Lab ID: 1508B79-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:56:28 PM	D28672
Lead	ND	0.0025		mg/L	5	9/4/2015 4:56:28 PM	D28672
Selenium	ND	0.010		mg/L	10	9/4/2015 6:24:34 PM	D28672
Uranium	0.028	0.0025		mg/L	5	9/4/2015 4:56:28 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.79	0.50		mg/L	5	8/26/2015 5:58:29 AM	R28469
Chloride	1300	50		mg/L	100	9/2/2015 11:57:01 PM	R28635
Bromide	1.6	0.50		mg/L	5	8/26/2015 5:58:29 AM	R28469
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 5:58:29 AM	R28469
Sulfate	450	10		mg/L	20	8/26/2015 6:10:54 AM	R28469
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 2:38:28 PM	R28527
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.071	0.0020		mg/L	1	9/3/2015 4:58:21 PM	A28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 4:58:21 PM	A28647
Calcium	130	5.0		mg/L	5	9/3/2015 6:07:26 PM	A28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 4:58:21 PM	A28647
Copper	ND	0.0060		mg/L	1	9/3/2015 4:58:21 PM	A28647
Iron	2.4	0.10	*	mg/L	5	9/3/2015 6:07:26 PM	A28647
Magnesium	25	1.0		mg/L	1	9/3/2015 4:58:21 PM	A28647
Manganese	0.14	0.0020	*	mg/L	1	9/3/2015 4:58:21 PM	A28647
Potassium	1.8	1.0		mg/L	1	9/3/2015 4:58:21 PM	A28647
Silver	ND	0.0050		mg/L	1	9/3/2015 4:58:21 PM	A28647
Sodium	1100	50		mg/L	50	9/3/2015 6:09:27 PM	A28647
Zinc	ND	0.010		mg/L	1	9/3/2015 4:58:21 PM	A28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.29	0.0020		mg/L	1	9/2/2015 3:02:57 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 3:02:57 PM	21084
Chromium	0.011	0.0060		mg/L	1	9/2/2015 3:02:57 PM	21084
Copper	0.0084	0.0060		mg/L	1	9/2/2015 3:02:57 PM	21084
Iron	8.4	0.40	*	mg/L	20	9/2/2015 5:30:57 PM	21084
Manganese	0.55	0.0020	*	mg/L	1	9/2/2015 3:02:57 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 3:02:57 PM	21084
Zinc	0.024	0.010		mg/L	1	9/2/2015 3:56:48 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/10/2015 5:44:39 PM	21084
Lead	0.0094	0.00050		mg/L	1	9/3/2015 7:59:35 PM	21084
Selenium	ND	0.010		mg/L	10	9/10/2015 8:39:30 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:42:00 AM

Lab ID: 1508B79-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.032	0.0025	*	mg/L	5	9/10/2015 5:44:39 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:16:07 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	0.17	0.050		mg/L	1	8/27/2015 12:22:59 AM	B28492
Surr: BFB	97.7	70-130		%REC	1	8/27/2015 12:22:59 AM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2015 1:38:47 AM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2015 1:38:47 AM	20964
Surr: DNOP	97.6	72-136		%REC	1	8/27/2015 1:38:47 AM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 10:27:14 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:42:00 AM

Lab ID: 1508B79-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 10:27:14 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 10:27:14 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 10:27:14 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 10:27:14 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:42:00 AM

Lab ID: 1508B79-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 10:27:14 PM	20975
Surr: 2-Fluorophenol	75.9	14.9-111		%REC	1	8/26/2015 10:27:14 PM	20975
Surr: Phenol-d5	71.0	11.3-108		%REC	1	8/26/2015 10:27:14 PM	20975
Surr: 2,4,6-Tribromophenol	120	15.7-154		%REC	1	8/26/2015 10:27:14 PM	20975
Surr: Nitrobenzene-d5	119	47.8-106	S	%REC	1	8/26/2015 10:27:14 PM	20975
Surr: 2-Fluorobiphenyl	120	21.3-123		%REC	1	8/26/2015 10:27:14 PM	20975
Surr: 4-Terphenyl-d14	107	14.3-135		%REC	1	8/26/2015 10:27:14 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Toluene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Ethylbenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Methyl tert-butyl ether (MTBE)	1.9	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2-Dichloroethane (EDC)	5.1	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Naphthalene	ND	2.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
2-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Acetone	ND	10		µg/L	1	8/27/2015 10:03:50 PM	B28519
Bromobenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Bromodichloromethane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Bromoform	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Bromomethane	ND	3.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
2-Butanone	ND	10		µg/L	1	8/27/2015 10:03:50 PM	B28519
Carbon disulfide	ND	10		µg/L	1	8/27/2015 10:03:50 PM	B28519
Carbon Tetrachloride	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Chlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Chloroethane	ND	2.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Chloroform	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Chloromethane	ND	3.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
2-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
4-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
cis-1,2-DCE	8.7	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:42:00 AM

Lab ID: 1508B79-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Dibromochloromethane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Dibromomethane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,1-Dichloroethane	110	10		µg/L	10	8/26/2015 9:01:56 PM	R28492
1,1-Dichloroethene	8.6	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,3-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
2,2-Dichloropropane	ND	2.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,1-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Hexachlorobutadiene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
2-Hexanone	ND	10		µg/L	1	8/27/2015 10:03:50 PM	B28519
Isopropylbenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
4-Isopropyltoluene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2015 10:03:50 PM	B28519
Methylene Chloride	ND	3.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
n-Butylbenzene	ND	3.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
n-Propylbenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
sec-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Styrene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
tert-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
trans-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,1,1-Trichloroethane	2.5	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,1,2-Trichloroethane	1.0	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Trichloroethene (TCE)	6.4	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Trichlorofluoromethane	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Vinyl chloride	ND	1.0		µg/L	1	8/27/2015 10:03:50 PM	B28519
Xylenes, Total	ND	1.5		µg/L	1	8/27/2015 10:03:50 PM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B79

Date Reported: 9/14/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/20/2015 8:42:00 AM

Lab ID: 1508B79-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: RAA	
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%REC	1	8/27/2015 10:03:50 PM	B28519
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/27/2015 10:03:50 PM	B28519
Surr: Dibromofluoromethane	90.5	70-130		%REC	1	8/27/2015 10:03:50 PM	B28519
Surr: Toluene-d8	99.7	70-130		%REC	1	8/27/2015 10:03:50 PM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A28647			RunNo: 28647					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867139		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867140		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.48	0.0060	0.5000	0	95.9	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.48	0.020	0.5000	0	96.2	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.47	0.0020	0.5000	0	94.9	85	115			
Potassium	50	1.0	50.00	0	99.3	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Sodium	52	1.0	50.00	0	103	85	115			
Zinc	0.47	0.010	0.5000	0	94.2	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867141		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	93.0	50	150			
Cadmium	ND	0.0020	0.002000	0	93.5	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Chromium	ND	0.0060	0.006000	0	93.7	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	LCSLL			SampType:	LCSLL			TestCode:	EPA Method 200.7: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	A28647			RunNo:	28647		
Prep Date:				Analysis Date:	9/3/2015			SeqNo:	867141		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Copper	0.0088	0.0060	0.006000	0	146	50	150				
Iron	0.021	0.020	0.02000	0	106	50	150				
Magnesium	ND	1.0	0.5000	0	107	50	150				
Manganese	0.0021	0.0020	0.002000	0	104	50	150				
Potassium	ND	1.0	0.5000	0	115	50	150				
Silver	ND	0.0050	0.005000	0	90.4	50	150				
Sodium	ND	1.0	0.5000	0	107	50	150				
Zinc	ND	0.010	0.005000	0	101	50	150				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-21084		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21084		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865832		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21084		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21084		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865833		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.49	0.020	0.5000	0	98.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.093	0.0050	0.1000	0	93.0	85	115			
Zinc	0.48	0.010	0.5000	0	96.6	85	115			

Sample ID	LLLCS-21084		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21084		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865834		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	120	50	150			
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Chromium	ND	0.0060	0.006000	0	80.2	50	150			
Copper	0.0063	0.0060	0.006000	0	105	50	150			
Iron	ND	0.020	0.02000	0	94.4	50	150			
Manganese	0.0020	0.0020	0.002000	0	100	50	150			
Silver	0.0054	0.0050	0.005000	0	107	50	150			
Zinc	ND	0.010	0.005000	0	118	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: D28672		RunNo: 28672					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868550		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.012	0.00050	0.01250	0	97.9	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.012	0.00050	0.01250	0	97.5	85	115			

Sample ID	LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: D28672			RunNo: 28672					
Prep Date:		Analysis Date: 9/4/2015			SeqNo: 868553		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	97.0	50	150			
Lead	0.00051	0.00050	0.0005000	0	101	50	150			
Selenium	0.0010	0.0010	0.001000	0	104	50	150			
Uranium	ND	0.00050	0.0005000	0	98.5	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: D28672			RunNo: 28672					
Prep Date:		Analysis Date: 9/4/2015			SeqNo: 868556		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-21084		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	21084		RunNo:	28654			
Prep Date:	9/1/2015		Analysis Date:	9/3/2015		SeqNo:	867438	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21084		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	21084		RunNo:	28654			
Prep Date:	9/1/2015		Analysis Date:	9/3/2015		SeqNo:	867440	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.8	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.023	0.0010	0.02500	0	92.0	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	MSLLCS-21084		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	21084		RunNo:	28654			
Prep Date:	9/1/2015		Analysis Date:	9/3/2015		SeqNo:	867442	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	107	50	150			
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	ND	0.0010	0.001000	0	82.7	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-21147	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	21147	RunNo:	28670					
Prep Date:	9/4/2015	Analysis Date:	9/4/2015	SeqNo:	868344	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-21147	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	21147	RunNo:	28670					
Prep Date:	9/4/2015	Analysis Date:	9/4/2015	SeqNo:	868345	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	110	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28469	RunNo:	28469					
Prep Date:		Analysis Date:	8/25/2015	SeqNo:	860464	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28469	RunNo:	28469					
Prep Date:		Analysis Date:	8/25/2015	SeqNo:	860465	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.9	90	110			
Chloride	4.8	0.50	5.000	0	96.9	90	110			
Bromide	2.4	0.10	2.500	0	97.6	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	95.0	90	110			
Sulfate	9.8	0.50	10.00	0	98.4	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28469	RunNo:	28469					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	860543	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28469	RunNo:	28469					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	860544	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.0	90	110			
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Bromide	2.4	0.10	2.500	0	95.7	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.5	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	1508B79-004GMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	MKTF-22		Batch ID: R28469		RunNo: 28469					
Prep Date:			Analysis Date: 8/26/2015		SeqNo: 860548		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.50	2.500	0.3462	87.3	75.3	111			
Bromide	13	0.50	12.50	0.8441	93.8	84.6	106			

Sample ID	1508B79-004GMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	MKTF-22		Batch ID:	R28469		RunNo:	28469				
Prep Date:			Analysis Date:	8/26/2015		SeqNo:	860549		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	2.5	0.50	2.500	0.3462	87.0	75.3	111	0.332	20		
Bromide	13	0.50	12.50	0.8441	95.5	84.6	106	1.69	20		

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28527			RunNo: 28527					
Prep Date:		Analysis Date: 8/27/2015			SeqNo: 862868		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28527		RunNo: 28527					
Prep Date:			Analysis Date: 8/27/2015		SeqNo: 862869		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28527			RunNo: 28527					
Prep Date:		Analysis Date: 8/27/2015			SeqNo: 862924		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28527		RunNo: 28527					
Prep Date:			Analysis Date: 8/27/2015		SeqNo: 862925		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28635	RunNo:	28635					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	866764	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28635	RunNo:	28635					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	866765	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-20964		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20964		RunNo: 28473					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 860736		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.82		1.000		81.9	72	136			

Sample ID	LCS-20964		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20964		RunNo: 28473					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 860737		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	52.4	154			
Surr: DNOP	0.45		0.5000		90.3	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	100ng lcs		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R28492			RunNo: 28492				
Prep Date:			Analysis Date: 8/26/2015			SeqNo: 861567		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.9	70	130			
Toluene	18	1.0	20.00	0	90.9	70	130			
Chlorobenzene	18	1.0	20.00	0	89.4	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	79.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Sample ID	1508B79-004a ms		SampType: MS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	MKTF-22		Batch ID: R28492			RunNo: 28492				
Prep Date:			Analysis Date: 8/26/2015			SeqNo: 861573		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1600	20	400.0	1183	112	70	130			
Toluene	370	20	400.0	6.492	90.1	70	130			
Chlorobenzene	360	20	400.0	0	89.3	70	130			
1,1-Dichloroethene	440	20	400.0	11.44	107	70	130			
Trichloroethene (TCE)	330	20	400.0	0	81.9	70	130			
Surr: 1,2-Dichloroethane-d4	200		200.0		100	70	130			
Surr: 4-Bromofluorobenzene	190		200.0		97.3	70	130			
Surr: Dibromofluoromethane	200		200.0		99.5	70	130			
Surr: Toluene-d8	190		200.0		97.4	70	130			

Sample ID	1508B79-004a msd		SampType: MSD			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	MKTF-22		Batch ID: R28492			RunNo: 28492				
Prep Date:			Analysis Date: 8/26/2015			SeqNo: 861574		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1600	20	400.0	1183	99.8	70	130	2.95	20	
Toluene	370	20	400.0	6.492	89.9	70	130	0.165	20	
Chlorobenzene	360	20	400.0	0	89.0	70	130	0.387	20	
1,1-Dichloroethene	410	20	400.0	11.44	100	70	130	6.24	20	
Trichloroethene (TCE)	320	20	400.0	0	79.3	70	130	3.21	20	
Surr: 1,2-Dichloroethane-d4	210		200.0		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	190		200.0		96.1	70	130	0	0	
Surr: Dibromofluoromethane	200		200.0		98.8	70	130	0	0	
Surr: Toluene-d8	200		200.0		101	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28492			RunNo: 28492					
Prep Date:		Analysis Date: 8/26/2015			SeqNo: 861586	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R28492				RunNo: 28492				
Prep Date:		Analysis Date: 8/26/2015				SeqNo: 861586	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.4	70	130			
Surr: Toluene-d8	9.6		10.00		96.0	70	130			

Sample ID	100ng-lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: B28519				RunNo: 28519				
Prep Date:		Analysis Date: 8/27/2015				SeqNo: 862547	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.5	70	130			
Toluene	19	1.0	20.00	0	92.8	70	130			
Chlorobenzene	19	1.0	20.00	0	92.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	100ng-lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: B28519		RunNo: 28519					
Prep Date:			Analysis Date: 8/27/2015		SeqNo: 862547		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.4	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: B28519			RunNo: 28519					
Prep Date:		Analysis Date: 8/27/2015			SeqNo: 862580		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: B28519			RunNo: 28519					
Prep Date:		Analysis Date: 8/27/2015			SeqNo: 862580	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	B28519	RunNo:	28519					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	862580	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-20975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861180	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-20975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861180	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		69.2	14.9	111			
Surr: Phenol-d5	130		200.0		64.9	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		76.1	15.7	154			
Surr: Nitrobenzene-d5	73		100.0		72.6	47.8	106			
Surr: 2-Fluorobiphenyl	69		100.0		69.4	21.3	123			
Surr: 4-Terphenyl-d14	130		100.0		125	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	lcs-20975		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20975		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861184		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	87	10	100.0	0	87.1	47.8	99.7			
4-Chloro-3-methylphenol	170	10	200.0	0	83.4	58.1	103			
2-Chlorophenol	180	10	200.0	0	90.2	49.5	96.8			
1,4-Dichlorobenzene	91	10	100.0	0	91.3	40.4	89.4			S
2,4-Dinitrotoluene	60	10	100.0	0	60.2	38.6	91.3			
N-Nitrosodi-n-propylamine	83	10	100.0	0	83.5	53.9	95.6			
4-Nitrophenol	170	10	200.0	0	84.6	26.4	108			
Pentachlorophenol	170	20	200.0	0	83.3	36.5	86.6			
Phenol	170	10	200.0	0	85.3	29.3	108			
Pyrene	130	10	100.0	0	132	45.7	100			S
1,2,4-Trichlorobenzene	100	10	100.0	0	102	39.3	94.5			S
Surr: 2-Fluorophenol	180		200.0		88.3	14.9	111			
Surr: Phenol-d5	180		200.0		88.6	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		98.3	15.7	154			
Surr: Nitrobenzene-d5	95		100.0		94.9	47.8	106			
Surr: 2-Fluorobiphenyl	93		100.0		93.1	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		112	14.3	135			

Sample ID	lcsd-20975		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20975		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861187		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	90.6	47.8	99.7	3.92	28.2	
4-Chloro-3-methylphenol	190	10	200.0	0	95.8	58.1	103	13.9	24.4	
2-Chlorophenol	190	10	200.0	0	92.6	49.5	96.8	2.70	28.1	
1,4-Dichlorobenzene	92	10	100.0	0	92.2	40.4	89.4	0.981	31.2	S
2,4-Dinitrotoluene	66	10	100.0	0	65.6	38.6	91.3	8.59	44.4	
N-Nitrosodi-n-propylamine	93	10	100.0	0	92.5	53.9	95.6	10.3	24.2	
4-Nitrophenol	170	10	200.0	0	83.0	26.4	108	1.84	36.6	
Pentachlorophenol	170	20	200.0	0	86.9	36.5	86.6	4.31	29.5	S
Phenol	190	10	200.0	0	93.8	29.3	108	9.48	30	
Pyrene	130	10	100.0	0	134	45.7	100	1.47	31	S
1,2,4-Trichlorobenzene	100	10	100.0	0	100	39.3	94.5	1.80	24	S
Surr: 2-Fluorophenol	180		200.0		88.5	14.9	111	0	0	
Surr: Phenol-d5	180		200.0		89.1	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	210		200.0		107	15.7	154	0	0	
Surr: Nitrobenzene-d5	96		100.0		95.9	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	95		100.0		95.0	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	lcscd-20975	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861187	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	110		100.0		115	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B79

14-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	1508B79-005B MS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-24		Batch ID: B28492		RunNo: 28492					
Prep Date:			Analysis Date: 8/26/2015		SeqNo: 861595		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	1.0	10.00	9.484	95.2	53.8	128			
Surr: BFB	200		200.0		102	70	130			

Sample ID	1508B79-005B MSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	MKTF-24		Batch ID:	B28492		RunNo:	28492				
Prep Date:			Analysis Date:	8/26/2015		SeqNo:	861596		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	19	1.0	10.00	9.484	91.6	53.8	128	1.89	20		
Surr: BFB	200		200.0		99.6	70	130	0	0		

Sample ID	2.5ug gro lcs	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID: B28492			RunNo: 28492					
Prep Date:		Analysis Date: 8/26/2015			SeqNo: 861612		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	101	80.6	122			
Surr: BFB	10		10.00		103	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: B28492			RunNo: 28492					
Prep Date:		Analysis Date: 8/26/2015			SeqNo: 861613		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		99.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508B79

RcptNo: 1

Received by/date:

CS *08/24/15*

Logged By: Ashley Gallegos

8/24/2015 2:43:00 PM

AG

Completed By: Ashley Gallegos

8/24/2015 4:56:33 PM

AG

Reviewed By:

mg *08/25/15*

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☒

9. Was preservative added to bottles?

Yes ☒

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

21

(*2* or >12 unless noted)

Adjusted?

YES

Checked by:

JA

For metals analysis: Added 1ml HNO₃ to -004F for acceptable pH. Held in log in 24 hours after preservation.

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

Email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ NELAP

☐ EDD (Type)

Accreditation:

☐ Other

On Ice: ☒ Yes ☐ No

Sample Temperature: 35°C

Container Type and #

Preservative Type

HEAL No. 1508379

HEAL No. -001

HEAL No. -002

HEAL No. -003

HEAL No. -004

HEAL No. -005

HEAL No. -006

HEAL No. -007

HEAL No. -008

HEAL No. -009

HEAL No. -010

HEAL No. -011

HEAL No. -012

HEAL No. -013

HEAL No. -014

HEAL No. -015

HEAL No. -016

HEAL No. -017

HEAL No. -018

HEAL No. -019

HEAL No. -020

HEAL No. -021

HEAL No. -022

HEAL No. -023

HEAL No. -024

HEAL No. -025



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Analysis Request

Remarks:

Received by: Date Time

Relinquished by: Date Time

Date Time

Received by: Date Time

Relinquished by: Date Time

Date Time

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 21, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3RD QTR (MKTF)

OrderNo.: 1508B80

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 14 sample(s) on 8/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 7:00:00 AM

Lab ID: 1508B80-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Toluene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Naphthalene	ND	2.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Acetone	ND	10		µg/L	1	8/26/2015 12:33:51 PM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Bromoform	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Bromomethane	ND	3.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
2-Butanone	ND	10		µg/L	1	8/26/2015 12:33:51 PM	R28474
Carbon disulfide	ND	10		µg/L	1	8/26/2015 12:33:51 PM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Chloroethane	ND	2.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Chloroform	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Chloromethane	ND	3.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 12:33:51 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 7:00:00 AM

Lab ID: 1508B80-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
2-Hexanone	ND	10		µg/L	1	8/26/2015 12:33:51 PM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 12:33:51 PM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Styrene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 12:33:51 PM	R28474
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 12:33:51 PM	R28474
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	8/26/2015 12:33:51 PM	R28474
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	8/26/2015 12:33:51 PM	R28474
Surr: Dibromofluoromethane	104	70-130		%REC	1	8/26/2015 12:33:51 PM	R28474
Surr: Toluene-d8	93.8	70-130		%REC	1	8/26/2015 12:33:51 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD QTR (MKTF)

Collection Date:

Lab ID: 1508B80-002

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/26/2015 1:01:16 PM	A28474
Surr: BFB	97.2	70-130		%REC	1	8/26/2015 1:01:16 PM	A28474
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Toluene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Naphthalene	ND	2.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Acetone	ND	10		µg/L	1	8/26/2015 1:01:16 PM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Bromoform	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Bromomethane	ND	3.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
2-Butanone	ND	10		µg/L	1	8/26/2015 1:01:16 PM	R28474
Carbon disulfide	ND	10		µg/L	1	8/26/2015 1:01:16 PM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Chloroethane	ND	2.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Chloroform	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Chloromethane	ND	3.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD QTR (MKTF)

Collection Date:

Lab ID: 1508B80-002

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
2-Hexanone	ND	10		µg/L	1	8/26/2015 1:01:16 PM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 1:01:16 PM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Styrene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 1:01:16 PM	R28474
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 1:01:16 PM	R28474
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	8/26/2015 1:01:16 PM	R28474
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	8/26/2015 1:01:16 PM	R28474
Surr: Dibromofluoromethane	110	70-130		%REC	1	8/26/2015 1:01:16 PM	R28474
Surr: Toluene-d8	94.5	70-130		%REC	1	8/26/2015 1:01:16 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 7:00:00 AM

Lab ID: 1508B80-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Aniline	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Anthracene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Azobenzene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Benzoic acid	ND	24	D	µg/L	1	8/27/2015 6:52:01 PM	21021
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Carbazole	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
4-Chloro-3-methylphenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2-Chlorophenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Chrysene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2,4-Dichlorophenol	ND	24	D	µg/L	1	8/27/2015 6:52:01 PM	21021
2,4-Dimethylphenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
4,6-Dinitro-2-methylphenol	ND	24	D	µg/L	1	8/27/2015 6:52:01 PM	21021
2,4-Dinitrophenol	ND	24	D	µg/L	1	8/27/2015 6:52:01 PM	21021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 7:00:00 AM

Lab ID: 1508B80-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Fluoranthene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Fluorene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Isophorone	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2-Methylphenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
3+4-Methylphenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Naphthalene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2-Nitrophenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
4-Nitrophenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
Pentachlorophenol	ND	24	D	µg/L	1	8/27/2015 6:52:01 PM	21021
Phenanthrene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Phenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
Pyrene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
Pyridine	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 1:22:34 PM	20975
2,4,5-Trichlorophenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
2,4,6-Trichlorophenol	ND	12	D	µg/L	1	8/27/2015 6:52:01 PM	21021
Surr: 2-Fluorophenol	1.92	14.9-111	SD	%REC	1	8/27/2015 6:52:01 PM	21021
Surr: Phenol-d5	10.7	11.3-108	SD	%REC	1	8/27/2015 6:52:01 PM	21021
Surr: 2,4,6-Tribromophenol	2.09	15.7-154	SD	%REC	1	8/27/2015 6:52:01 PM	21021
Surr: Nitrobenzene-d5	76.9	47.8-106		%REC	1	8/27/2015 1:22:34 PM	20975
Surr: 2-Fluorobiphenyl	77.0	21.3-123		%REC	1	8/27/2015 1:22:34 PM	20975
Surr: 4-Terphenyl-d14	66.3	14.3-135		%REC	1	8/27/2015 1:22:34 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 3:45:00 PM

Lab ID: 1508B80-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/4/2015 4:59:32 PM	D28672
Lead	ND	0.0025		mg/L	5	9/4/2015 4:59:32 PM	D28672
Selenium	ND	0.0050		mg/L	5	9/4/2015 4:59:32 PM	D28672
Uranium	ND	0.0025		mg/L	5	9/4/2015 4:59:32 PM	D28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.78	0.50		mg/L	5	9/1/2015 9:58:54 PM	R28611
Chloride	460	25		mg/L	50	9/1/2015 10:11:18 PM	R28611
Bromide	1.6	0.50		mg/L	5	9/1/2015 9:58:54 PM	R28611
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/1/2015 9:58:54 PM	R28611
Sulfate	ND	2.5		mg/L	5	9/1/2015 9:58:54 PM	R28611
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 10:37:11 AM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	2.4	0.010	*	mg/L	5	9/4/2015 6:12:22 PM	B28671
Cadmium	ND	0.0020		mg/L	1	9/3/2015 6:52:04 PM	D28647
Calcium	110	5.0		mg/L	5	9/4/2015 6:12:22 PM	B28671
Chromium	ND	0.0060		mg/L	1	9/3/2015 6:52:04 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 6:52:04 PM	D28647
Iron	4.0	0.10	*	mg/L	5	9/4/2015 6:12:22 PM	B28671
Magnesium	24	1.0		mg/L	1	9/3/2015 6:52:04 PM	D28647
Manganese	1.9	0.010	*	mg/L	5	9/4/2015 6:12:22 PM	B28671
Potassium	ND	1.0		mg/L	1	9/3/2015 6:52:04 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 6:52:04 PM	D28647
Sodium	480	5.0		mg/L	5	9/4/2015 6:12:22 PM	B28671
Zinc	ND	0.010		mg/L	1	9/3/2015 6:52:04 PM	D28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.8	0.010	*	mg/L	5	9/2/2015 5:32:59 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 3:58:42 PM	21085
Chromium	ND	0.0060		mg/L	1	9/2/2015 3:58:42 PM	21085
Copper	ND	0.0060		mg/L	1	9/2/2015 3:58:42 PM	21085
Iron	8.7	0.20	*	mg/L	10	9/2/2015 5:38:26 PM	21085
Manganese	2.1	0.010	*	mg/L	5	9/2/2015 5:32:59 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 3:58:42 PM	21085
Zinc	0.014	0.010		mg/L	1	9/2/2015 3:58:42 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0033	0.0010		mg/L	1	9/10/2015 5:56:44 PM	21085
Lead	0.0062	0.00050		mg/L	1	9/10/2015 5:56:44 PM	21085
Selenium	ND	0.010		mg/L	10	9/10/2015 5:53:44 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 3:45:00 PM

Lab ID: 1508B80-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.00078	0.00050		mg/L	1	9/10/2015 5:56:44 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:18:08 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	26	2.5		mg/L	50	8/26/2015 1:28:43 PM	A28474
Surr: BFB	92.9	70-130		%REC	50	8/26/2015 1:28:43 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	34	1.0		mg/L	1	8/26/2015 5:07:41 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 5:07:41 PM	20964
Surr: DNOP	114	72-136		%REC	1	8/26/2015 5:07:41 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Aniline	14	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 10:57:13 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 3:45:00 PM

Lab ID: 1508B80-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 10:57:13 PM	20975
2,4-Dimethylphenol	46	10		µg/L	1	8/26/2015 10:57:13 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 10:57:13 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 10:57:13 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
1-Methylnaphthalene	140	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2-Methylnaphthalene	30	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2-Methylphenol	54	10		µg/L	1	8/26/2015 10:57:13 PM	20975
3+4-Methylphenol	50	10		µg/L	1	8/26/2015 10:57:13 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Naphthalene	100	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 10:57:13 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 3:45:00 PM

Lab ID: 1508B80-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	22	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 10:57:13 PM	20975
Surr: 2-Fluorophenol	85.1	14.9-111		%REC	1	8/26/2015 10:57:13 PM	20975
Surr: Phenol-d5	79.9	11.3-108		%REC	1	8/26/2015 10:57:13 PM	20975
Surr: 2,4,6-Tribromophenol	138	15.7-154		%REC	1	8/26/2015 10:57:13 PM	20975
Surr: Nitrobenzene-d5	112	47.8-106	S	%REC	1	8/26/2015 10:57:13 PM	20975
Surr: 2-Fluorobiphenyl	116	21.3-123		%REC	1	8/26/2015 10:57:13 PM	20975
Surr: 4-Terphenyl-d14	86.3	14.3-135		%REC	1	8/26/2015 10:57:13 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	9100	500		µg/L	500	8/27/2015 2:17:50 AM	R28474
Toluene	1000	50		µg/L	50	8/26/2015 1:28:43 PM	R28474
Ethylbenzene	700	50		µg/L	50	8/26/2015 1:28:43 PM	R28474
Methyl tert-butyl ether (MTBE)	440	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2,4-Trimethylbenzene	650	50		µg/L	50	8/26/2015 1:28:43 PM	R28474
1,3,5-Trimethylbenzene	57	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Naphthalene	81	10		µg/L	5	8/26/2015 1:56:09 PM	R28474
1-Methylnaphthalene	44	20		µg/L	5	8/26/2015 1:56:09 PM	R28474
2-Methylnaphthalene	ND	20		µg/L	5	8/26/2015 1:56:09 PM	R28474
Acetone	ND	50		µg/L	5	8/26/2015 1:56:09 PM	R28474
Bromobenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Bromodichloromethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Bromoform	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Bromomethane	ND	15		µg/L	5	8/26/2015 1:56:09 PM	R28474
2-Butanone	ND	50		µg/L	5	8/26/2015 1:56:09 PM	R28474
Carbon disulfide	ND	50		µg/L	5	8/26/2015 1:56:09 PM	R28474
Carbon Tetrachloride	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Chlorobenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Chloroethane	ND	10		µg/L	5	8/26/2015 1:56:09 PM	R28474
Chloroform	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Chloromethane	ND	15		µg/L	5	8/26/2015 1:56:09 PM	R28474
2-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
4-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
cis-1,2-DCE	42	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 3:45:00 PM

Lab ID: 1508B80-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/26/2015 1:56:09 PM	R28474
Dibromochloromethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Dibromomethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,1-Dichloroethane	65	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,1-Dichloroethene	51	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,3-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
2,2-Dichloropropane	ND	10		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,1-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Hexachlorobutadiene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
2-Hexanone	ND	50		µg/L	5	8/26/2015 1:56:09 PM	R28474
Isopropylbenzene	45	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
4-Isopropyltoluene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
4-Methyl-2-pentanone	ND	50		µg/L	5	8/26/2015 1:56:09 PM	R28474
Methylene Chloride	ND	15		µg/L	5	8/26/2015 1:56:09 PM	R28474
n-Butylbenzene	19	15		µg/L	5	8/26/2015 1:56:09 PM	R28474
n-Propylbenzene	130	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
sec-Butylbenzene	11	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Styrene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
tert-Butylbenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/26/2015 1:56:09 PM	R28474
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
trans-1,2-DCE	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Trichlorofluoromethane	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
1,2,3-Trichloropropane	ND	10		µg/L	5	8/26/2015 1:56:09 PM	R28474
Vinyl chloride	ND	5.0		µg/L	5	8/26/2015 1:56:09 PM	R28474
Xylenes, Total	870	7.5		µg/L	5	8/26/2015 1:56:09 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1508B80**

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 3:45:00 PM

Lab ID: 1508B80-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	5	8/26/2015 1:56:09 PM	R28474
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	5	8/26/2015 1:56:09 PM	R28474
Surr: Dibromofluoromethane	104	70-130		%REC	5	8/26/2015 1:56:09 PM	R28474
Surr: Toluene-d8	96.0	70-130		%REC	5	8/26/2015 1:56:09 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 4:20:00 PM

Lab ID: 1508B80-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0043	0.0010		mg/L	1	9/9/2015 5:22:23 PM	B28733
Lead	ND	0.00050		mg/L	1	9/9/2015 5:22:23 PM	B28733
Selenium	0.0032	0.0010		mg/L	1	9/9/2015 5:22:23 PM	B28733
Uranium	0.048	0.0025	*	mg/L	5	9/9/2015 5:19:18 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.2	0.50		mg/L	5	9/1/2015 10:23:42 PM	R28611
Chloride	550	25		mg/L	50	9/1/2015 10:36:07 PM	R28611
Bromide	1.1	0.50		mg/L	5	9/1/2015 10:23:42 PM	R28611
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/1/2015 10:23:42 PM	R28611
Sulfate	130	2.5		mg/L	5	9/1/2015 10:23:42 PM	R28611
Nitrate+Nitrite as N	6.2	1.0		mg/L	5	8/27/2015 10:49:35 AM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	9/3/2015 7:00:51 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:00:51 PM	D28647
Calcium	65	1.0		mg/L	1	9/3/2015 7:00:51 PM	D28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:00:51 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:00:51 PM	D28647
Iron	0.76	0.020	*	mg/L	1	9/3/2015 7:00:51 PM	D28647
Magnesium	10	1.0		mg/L	1	9/3/2015 7:00:51 PM	D28647
Manganese	0.60	0.0020	*	mg/L	1	9/3/2015 7:00:51 PM	D28647
Potassium	2.8	1.0		mg/L	1	9/3/2015 7:00:51 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:00:51 PM	D28647
Sodium	610	10		mg/L	10	9/4/2015 6:18:18 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 6:16:19 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.28	0.0020		mg/L	1	9/2/2015 4:09:39 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:09:39 PM	21085
Chromium	0.0073	0.0060		mg/L	1	9/2/2015 4:09:39 PM	21085
Copper	0.0089	0.0060		mg/L	1	9/2/2015 4:09:39 PM	21085
Iron	8.6	0.40	*	mg/L	20	9/2/2015 5:45:59 PM	21085
Manganese	0.81	0.0020	*	mg/L	1	9/2/2015 4:09:39 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:09:39 PM	21085
Zinc	0.033	0.010		mg/L	1	9/2/2015 4:09:39 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0044	0.0010		mg/L	1	9/10/2015 6:02:45 PM	21085
Lead	0.0088	0.00050		mg/L	1	9/10/2015 6:02:45 PM	21085
Selenium	0.0026	0.0010		mg/L	1	9/10/2015 6:02:45 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 4:20:00 PM

Lab ID: 1508B80-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.050	0.0050	*	mg/L	10	9/10/2015 5:59:45 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:20:10 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	2.0	0.050		mg/L	1	8/26/2015 4:41:07 PM	A28474
Surr: BFB	101	70-130		%REC	1	8/26/2015 4:41:07 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 5:34:44 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 5:34:44 PM	20964
Surr: DNOP	108	72-136		%REC	1	8/26/2015 5:34:44 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 11:27:13 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 4:20:00 PM

Lab ID: 1508B80-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 11:27:13 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 11:27:13 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 11:27:13 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 11:27:13 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 4:20:00 PM

Lab ID: 1508B80-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 11:27:13 PM	20975
Surr: 2-Fluorophenol	70.7	14.9-111		%REC	1	8/26/2015 11:27:13 PM	20975
Surr: Phenol-d5	66.0	11.3-108		%REC	1	8/26/2015 11:27:13 PM	20975
Surr: 2,4,6-Tribromophenol	117	15.7-154		%REC	1	8/26/2015 11:27:13 PM	20975
Surr: Nitrobenzene-d5	103	47.8-106		%REC	1	8/26/2015 11:27:13 PM	20975
Surr: 2-Fluorobiphenyl	102	21.3-123		%REC	1	8/26/2015 11:27:13 PM	20975
Surr: 4-Terphenyl-d14	78.5	14.3-135		%REC	1	8/26/2015 11:27:13 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	370	10		µg/L	10	8/27/2015 7:47:03 AM	R28474
Toluene	5.6	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Ethylbenzene	11	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Methyl tert-butyl ether (MTBE)	44	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2,4-Trimethylbenzene	1.7	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2-Dichloroethane (EDC)	9.1	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Naphthalene	3.6	2.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Acetone	ND	10		µg/L	1	8/26/2015 4:41:07 PM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Bromoform	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Bromomethane	ND	3.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
2-Butanone	ND	10		µg/L	1	8/26/2015 4:41:07 PM	R28474
Carbon disulfide	ND	10		µg/L	1	8/26/2015 4:41:07 PM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Chloroethane	ND	2.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Chloroform	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Chloromethane	ND	3.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
cis-1,2-DCE	10	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 4:20:00 PM

Lab ID: 1508B80-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,1-Dichloroethane	62	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,1-Dichloroethene	59	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
2-Hexanone	ND	10		µg/L	1	8/26/2015 4:41:07 PM	R28474
Isopropylbenzene	7.2	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 4:41:07 PM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
n-Propylbenzene	5.6	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
sec-Butylbenzene	1.3	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Styrene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,1,2-Trichloroethane	1.2	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Trichloroethene (TCE)	5.3	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Vinyl chloride	1.3	1.0		µg/L	1	8/26/2015 4:41:07 PM	R28474
Xylenes, Total	3.3	1.5		µg/L	1	8/26/2015 4:41:07 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 4:20:00 PM

Lab ID: 1508B80-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/26/2015 4:41:07 PM	R28474
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	8/26/2015 4:41:07 PM	R28474
Surr: Dibromofluoromethane	98.6	70-130		%REC	1	8/26/2015 4:41:07 PM	R28474
Surr: Toluene-d8	95.9	70-130		%REC	1	8/26/2015 4:41:07 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 1:30:00 PM

Lab ID: 1508B80-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.0010	*	mg/L	1	9/9/2015 5:28:32 PM	B28733
Lead	ND	0.00050		mg/L	1	9/9/2015 5:28:32 PM	B28733
Selenium	ND	0.010		mg/L	10	9/9/2015 6:23:50 PM	B28733
Uranium	0.014	0.00050		mg/L	1	9/9/2015 5:28:32 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.57	0.50		mg/L	5	9/1/2015 10:48:31 PM	R28611
Chloride	300	10		mg/L	20	9/1/2015 11:00:56 PM	R28611
Bromide	1.6	0.50		mg/L	5	9/1/2015 10:48:31 PM	R28611
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/1/2015 10:48:31 PM	R28611
Sulfate	ND	2.5		mg/L	5	9/1/2015 10:48:31 PM	R28611
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 11:02:00 AM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.70	0.0020		mg/L	1	9/3/2015 7:02:50 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:02:50 PM	D28647
Calcium	76	1.0		mg/L	1	9/3/2015 7:02:50 PM	D28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:02:50 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:02:50 PM	D28647
Iron	0.34	0.020	*	mg/L	1	9/3/2015 7:02:50 PM	D28647
Magnesium	13	1.0		mg/L	1	9/3/2015 7:02:50 PM	D28647
Manganese	1.3	0.010	*	mg/L	5	9/4/2015 6:22:11 PM	B28671
Potassium	1.9	1.0		mg/L	1	9/3/2015 7:02:50 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:02:50 PM	D28647
Sodium	500	5.0		mg/L	5	9/4/2015 6:22:11 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 6:20:14 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.90	0.0020		mg/L	1	9/2/2015 4:11:28 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:11:28 PM	21085
Chromium	0.0062	0.0060		mg/L	1	9/2/2015 4:11:28 PM	21085
Copper	0.0080	0.0060		mg/L	1	9/2/2015 4:11:28 PM	21085
Iron	5.4	0.20	*	mg/L	10	9/2/2015 5:47:58 PM	21085
Manganese	1.7	0.020	*	mg/L	10	9/2/2015 5:47:58 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:11:28 PM	21085
Zinc	0.022	0.010		mg/L	1	9/2/2015 4:11:28 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.014	0.0050	*	mg/L	5	9/10/2015 6:05:46 PM	21085
Lead	0.0088	0.0025		mg/L	5	9/10/2015 6:05:46 PM	21085
Selenium	ND	0.0050		mg/L	5	9/10/2015 6:05:46 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 1:30:00 PM

Lab ID: 1508B80-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.032	0.0025	*	mg/L	5	9/10/2015 6:05:46 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:22:12 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	29	1.0		mg/L	20	8/26/2015 6:31:09 PM	A28474
Surr: BFB	94.8	70-130		%REC	20	8/26/2015 6:31:09 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	35	1.0		mg/L	1	8/26/2015 6:01:36 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 6:01:36 PM	20964
Surr: DNOP	114	72-136		%REC	1	8/26/2015 6:01:36 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Aniline	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Anthracene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Azobenzene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Benzoic acid	ND	20		µg/L	1	8/27/2015 1:52:27 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Carbazole	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Chrysene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 1:30:00 PM

Lab ID: 1508B80-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 1:52:27 PM	20975
2,4-Dimethylphenol	100	10		µg/L	1	8/27/2015 1:52:27 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 1:52:27 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 1:52:27 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Fluoranthene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Fluorene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Isophorone	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
1-Methylnaphthalene	140	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2-Methylnaphthalene	190	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2-Methylphenol	61	10		µg/L	1	8/27/2015 1:52:27 PM	20975
3+4-Methylphenol	47	10		µg/L	1	8/27/2015 1:52:27 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Naphthalene	270	20		µg/L	2	8/27/2015 7:21:57 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 1:52:27 PM	20975
Phenanthrene	16	10		µg/L	1	8/27/2015 1:52:27 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 1:30:00 PM

Lab ID: 1508B80-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Pyrene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Pyridine	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 1:52:27 PM	20975
Surr: 2-Fluorophenol	63.9	14.9-111		%REC	1	8/27/2015 1:52:27 PM	20975
Surr: Phenol-d5	61.8	11.3-108		%REC	1	8/27/2015 1:52:27 PM	20975
Surr: 2,4,6-Tribromophenol	111	15.7-154		%REC	1	8/27/2015 1:52:27 PM	20975
Surr: Nitrobenzene-d5	81.5	47.8-106		%REC	1	8/27/2015 1:52:27 PM	20975
Surr: 2-Fluorobiphenyl	91.6	21.3-123		%REC	1	8/27/2015 1:52:27 PM	20975
Surr: 4-Terphenyl-d14	77.3	14.3-135		%REC	1	8/27/2015 1:52:27 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	3000	200		µg/L	200	8/26/2015 6:03:37 PM	R28474
Toluene	2700	200		µg/L	200	8/26/2015 6:03:37 PM	R28474
Ethylbenzene	420	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Methyl tert-butyl ether (MTBE)	1200	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2,4-Trimethylbenzene	920	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,3,5-Trimethylbenzene	240	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Naphthalene	160	40		µg/L	20	8/26/2015 6:31:09 PM	R28474
1-Methylnaphthalene	ND	80		µg/L	20	8/26/2015 6:31:09 PM	R28474
2-Methylnaphthalene	ND	80		µg/L	20	8/26/2015 6:31:09 PM	R28474
Acetone	ND	200		µg/L	20	8/26/2015 6:31:09 PM	R28474
Bromobenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Bromodichloromethane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Bromoform	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Bromomethane	ND	60		µg/L	20	8/26/2015 6:31:09 PM	R28474
2-Butanone	ND	200		µg/L	20	8/26/2015 6:31:09 PM	R28474
Carbon disulfide	ND	200		µg/L	20	8/26/2015 6:31:09 PM	R28474
Carbon Tetrachloride	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Chlorobenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Chloroethane	ND	40		µg/L	20	8/26/2015 6:31:09 PM	R28474
Chloroform	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Chloromethane	ND	60		µg/L	20	8/26/2015 6:31:09 PM	R28474
2-Chlorotoluene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
4-Chlorotoluene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
cis-1,2-DCE	45	20		µg/L	20	8/26/2015 6:31:09 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 1:30:00 PM

Lab ID: 1508B80-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/26/2015 6:31:09 PM	R28474
Dibromochloromethane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Dibromomethane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2-Dichlorobenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,3-Dichlorobenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,4-Dichlorobenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Dichlorodifluoromethane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,1-Dichloroethane	130	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,1-Dichloroethene	54	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2-Dichloropropane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,3-Dichloropropane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
2,2-Dichloropropane	ND	40		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,1-Dichloropropene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Hexachlorobutadiene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
2-Hexanone	ND	200		µg/L	20	8/26/2015 6:31:09 PM	R28474
Isopropylbenzene	29	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
4-Isopropyltoluene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
4-Methyl-2-pentanone	ND	200		µg/L	20	8/26/2015 6:31:09 PM	R28474
Methylene Chloride	ND	60		µg/L	20	8/26/2015 6:31:09 PM	R28474
n-Butylbenzene	ND	60		µg/L	20	8/26/2015 6:31:09 PM	R28474
n-Propylbenzene	54	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
sec-Butylbenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Styrene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
tert-Butylbenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	8/26/2015 6:31:09 PM	R28474
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
trans-1,2-DCE	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,1,1-Trichloroethane	31	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,1,2-Trichloroethane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Trichloroethene (TCE)	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Trichlorofluoromethane	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
1,2,3-Trichloropropane	ND	40		µg/L	20	8/26/2015 6:31:09 PM	R28474
Vinyl chloride	ND	20		µg/L	20	8/26/2015 6:31:09 PM	R28474
Xylenes, Total	6200	300		µg/L	200	8/26/2015 6:03:37 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 1:30:00 PM

Lab ID: 1508B80-006

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	20	8/26/2015 6:31:09 PM	R28474
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	20	8/26/2015 6:31:09 PM	R28474
Surr: Dibromofluoromethane	105	70-130		%REC	20	8/26/2015 6:31:09 PM	R28474
Surr: Toluene-d8	94.5	70-130		%REC	20	8/26/2015 6:31:09 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:00:00 AM

Lab ID: 1508B80-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0043	0.0010		mg/L	1	9/9/2015 5:34:41 PM	B28733
Lead	0.00051	0.00050		mg/L	1	9/9/2015 5:34:41 PM	B28733
Selenium	ND	0.010		mg/L	10	9/9/2015 10:13:49 PM	B28733
Uranium	0.034	0.0025	*	mg/L	5	9/9/2015 5:31:36 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	9/1/2015 11:13:21 PM	R28611
Chloride	870	25		mg/L	50	9/1/2015 11:25:46 PM	R28611
Bromide	1.8	0.50		mg/L	5	9/1/2015 11:13:21 PM	R28611
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/1/2015 11:13:21 PM	R28611
Sulfate	31	2.5		mg/L	5	9/1/2015 11:13:21 PM	R28611
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 11:14:24 AM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.35	0.0020		mg/L	1	9/3/2015 7:04:46 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:04:46 PM	D28647
Calcium	150	5.0		mg/L	5	9/4/2015 6:33:41 PM	B28671
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:04:46 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:04:46 PM	D28647
Iron	0.57	0.020	*	mg/L	1	9/3/2015 7:04:46 PM	D28647
Magnesium	26	1.0		mg/L	1	9/3/2015 7:04:46 PM	D28647
Manganese	3.3	0.010	*	mg/L	5	9/4/2015 6:33:41 PM	B28671
Potassium	1.4	1.0		mg/L	1	9/3/2015 7:04:46 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:04:46 PM	D28647
Sodium	650	10		mg/L	10	9/4/2015 6:35:40 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 6:31:41 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.49	0.0020		mg/L	1	9/2/2015 4:13:10 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:13:10 PM	21085
Chromium	0.0065	0.0060		mg/L	1	9/2/2015 4:13:10 PM	21085
Copper	0.016	0.0060		mg/L	1	9/2/2015 4:13:10 PM	21085
Iron	5.2	0.20	*	mg/L	10	9/2/2015 5:49:57 PM	21085
Manganese	3.7	0.020	*	mg/L	10	9/2/2015 5:49:57 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:13:10 PM	21085
Zinc	0.015	0.010		mg/L	1	9/2/2015 4:13:10 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0039	0.0010		mg/L	1	9/10/2015 6:17:47 PM	21085
Lead	0.0084	0.00050		mg/L	1	9/10/2015 6:17:47 PM	21085
Selenium	0.0038	0.0010		mg/L	1	9/10/2015 6:17:47 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:00:00 AM

Lab ID: 1508B80-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.033	0.0050	*	mg/L	10	9/10/2015 6:14:46 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:24:13 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	8.7	0.25		mg/L	5	8/26/2015 7:25:58 PM	A28474
Surr: BFB	100	70-130		%REC	5	8/26/2015 7:25:58 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	8/26/2015 6:28:50 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 6:28:50 PM	20964
Surr: DNOP	115	72-136		%REC	1	8/26/2015 6:28:50 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Aniline	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Anthracene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Azobenzene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Benzoic acid	ND	20		µg/L	1	8/27/2015 2:22:21 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Carbazole	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Chrysene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:00:00 AM

Lab ID: 1508B80-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 2:22:21 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 2:22:21 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 2:22:21 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Fluoranthene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Fluorene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Isophorone	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Naphthalene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 2:22:21 PM	20975
Phenanthrene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:00:00 AM

Lab ID: 1508B80-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Pyrene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Pyridine	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 2:22:21 PM	20975
Surr: 2-Fluorophenol	63.4	14.9-111		%REC	1	8/27/2015 2:22:21 PM	20975
Surr: Phenol-d5	61.7	11.3-108		%REC	1	8/27/2015 2:22:21 PM	20975
Surr: 2,4,6-Tribromophenol	110	15.7-154		%REC	1	8/27/2015 2:22:21 PM	20975
Surr: Nitrobenzene-d5	89.6	47.8-106		%REC	1	8/27/2015 2:22:21 PM	20975
Surr: 2-Fluorobiphenyl	93.1	21.3-123		%REC	1	8/27/2015 2:22:21 PM	20975
Surr: 4-Terphenyl-d14	75.9	14.3-135		%REC	1	8/27/2015 2:22:21 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	1200	50		µg/L	50	8/26/2015 6:58:35 PM	R28474
Toluene	9.9	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Ethylbenzene	130	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Methyl tert-butyl ether (MTBE)	240	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2,4-Trimethylbenzene	5.6	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2-Dichloroethane (EDC)	12	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Naphthalene	ND	10		µg/L	5	8/26/2015 7:25:58 PM	R28474
1-Methylnaphthalene	ND	20		µg/L	5	8/26/2015 7:25:58 PM	R28474
2-Methylnaphthalene	ND	20		µg/L	5	8/26/2015 7:25:58 PM	R28474
Acetone	ND	50		µg/L	5	8/26/2015 7:25:58 PM	R28474
Bromobenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Bromodichloromethane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Bromoform	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Bromomethane	ND	15		µg/L	5	8/26/2015 7:25:58 PM	R28474
2-Butanone	ND	50		µg/L	5	8/26/2015 7:25:58 PM	R28474
Carbon disulfide	ND	50		µg/L	5	8/26/2015 7:25:58 PM	R28474
Carbon Tetrachloride	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Chlorobenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Chloroethane	ND	10		µg/L	5	8/26/2015 7:25:58 PM	R28474
Chloroform	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Chloromethane	ND	15		µg/L	5	8/26/2015 7:25:58 PM	R28474
2-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
4-Chlorotoluene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
cis-1,2-DCE	47	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:00:00 AM

Lab ID: 1508B80-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/26/2015 7:25:58 PM	R28474
Dibromochloromethane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Dibromomethane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,1-Dichloroethane	320	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,1-Dichloroethene	160	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,3-Dichloropropane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
2,2-Dichloropropane	ND	10		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,1-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Hexachlorobutadiene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
2-Hexanone	ND	50		µg/L	5	8/26/2015 7:25:58 PM	R28474
Isopropylbenzene	44	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
4-Isopropyltoluene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
4-Methyl-2-pentanone	ND	50		µg/L	5	8/26/2015 7:25:58 PM	R28474
Methylene Chloride	ND	15		µg/L	5	8/26/2015 7:25:58 PM	R28474
n-Butylbenzene	ND	15		µg/L	5	8/26/2015 7:25:58 PM	R28474
n-Propylbenzene	57	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
sec-Butylbenzene	8.3	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Styrene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
tert-Butylbenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/26/2015 7:25:58 PM	R28474
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
trans-1,2-DCE	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,1,1-Trichloroethane	61	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Trichloroethene (TCE)	37	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Trichlorofluoromethane	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
1,2,3-Trichloropropane	ND	10		µg/L	5	8/26/2015 7:25:58 PM	R28474
Vinyl chloride	ND	5.0		µg/L	5	8/26/2015 7:25:58 PM	R28474
Xylenes, Total	8.9	7.5		µg/L	5	8/26/2015 7:25:58 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:00:00 AM

Lab ID: 1508B80-007

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	5	8/26/2015 7:25:58 PM	R28474
Surr: 4-Bromofluorobenzene	103	70-130		%REC	5	8/26/2015 7:25:58 PM	R28474
Surr: Dibromofluoromethane	102	70-130		%REC	5	8/26/2015 7:25:58 PM	R28474
Surr: Toluene-d8	97.0	70-130		%REC	5	8/26/2015 7:25:58 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:25:00 AM

Lab ID: 1508B80-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/9/2015 5:37:45 PM	B28733
Lead	ND	0.00050		mg/L	1	9/9/2015 5:50:03 PM	B28733
Selenium	ND	0.010		mg/L	10	9/9/2015 10:23:03 PM	B28733
Uranium	0.047	0.0025	*	mg/L	5	9/9/2015 5:37:45 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 10:53:49 AM	R28495
Chloride	890	25		mg/L	50	9/1/2015 11:38:10 PM	R28611
Bromide	1.5	0.50		mg/L	5	8/26/2015 10:53:49 AM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 10:53:49 AM	R28495
Sulfate	71	2.5		mg/L	5	8/26/2015 10:53:49 AM	R28495
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 11:26:48 AM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.14	0.0020		mg/L	1	9/3/2015 7:06:46 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:06:46 PM	D28647
Calcium	160	10		mg/L	10	9/4/2015 6:39:34 PM	B28671
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:06:46 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:06:46 PM	D28647
Iron	ND	0.020		mg/L	1	9/3/2015 7:06:46 PM	D28647
Magnesium	33	1.0		mg/L	1	9/3/2015 7:06:46 PM	D28647
Manganese	0.035	0.0020		mg/L	1	9/3/2015 7:06:46 PM	D28647
Potassium	1.8	1.0		mg/L	1	9/3/2015 7:06:46 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:06:46 PM	D28647
Sodium	540	10		mg/L	10	9/4/2015 6:39:34 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 6:37:37 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.19	0.0020		mg/L	1	9/2/2015 4:15:03 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:15:03 PM	21085
Chromium	ND	0.0060		mg/L	1	9/2/2015 4:15:03 PM	21085
Copper	ND	0.0060		mg/L	1	9/2/2015 4:15:03 PM	21085
Iron	3.1	0.20	*	mg/L	10	9/2/2015 5:51:55 PM	21085
Manganese	0.13	0.0020	*	mg/L	1	9/2/2015 4:15:03 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:15:03 PM	21085
Zinc	ND	0.010		mg/L	1	9/2/2015 4:15:03 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/10/2015 6:26:54 PM	21085
Lead	0.0032	0.00050		mg/L	1	9/10/2015 6:29:54 PM	21085
Selenium	0.0046	0.0010		mg/L	1	9/10/2015 6:29:54 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:25:00 AM

Lab ID: 1508B80-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.049	0.0050	*	mg/L	10	9/10/2015 6:26:54 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:26:17 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.10	0.050		mg/L	1	8/26/2015 7:53:22 PM	A28474
Surr: BFB	95.4	70-130		%REC	1	8/26/2015 7:53:22 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 6:55:57 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 6:55:57 PM	20964
Surr: DNOP	122	72-136		%REC	1	8/26/2015 6:55:57 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Acenaphthylene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Aniline	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Anthracene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Azobenzene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Benzoic acid	ND	20		µg/L	1	8/26/2015 11:57:14 PM	20975
Benzyl alcohol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Carbazole	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
4-Chloroaniline	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2-Chlorophenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Chrysene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:25:00 AM

Lab ID: 1508B80-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Dibenzofuran	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Diethyl phthalate	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/26/2015 11:57:14 PM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/26/2015 11:57:14 PM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/26/2015 11:57:14 PM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Fluoranthene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Fluorene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Hexachloroethane	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Isophorone	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2-Methylphenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Naphthalene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2-Nitroaniline	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
3-Nitroaniline	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
4-Nitroaniline	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Nitrobenzene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2-Nitrophenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
4-Nitrophenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Pentachlorophenol	ND	20		µg/L	1	8/26/2015 11:57:14 PM	20975
Phenanthrene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:25:00 AM

Lab ID: 1508B80-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Pyrene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Pyridine	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2015 11:57:14 PM	20975
Surr: 2-Fluorophenol	68.8	14.9-111		%REC	1	8/26/2015 11:57:14 PM	20975
Surr: Phenol-d5	64.4	11.3-108		%REC	1	8/26/2015 11:57:14 PM	20975
Surr: 2,4,6-Tribromophenol	114	15.7-154		%REC	1	8/26/2015 11:57:14 PM	20975
Surr: Nitrobenzene-d5	99.2	47.8-106		%REC	1	8/26/2015 11:57:14 PM	20975
Surr: 2-Fluorobiphenyl	96.7	21.3-123		%REC	1	8/26/2015 11:57:14 PM	20975
Surr: 4-Terphenyl-d14	87.0	14.3-135		%REC	1	8/26/2015 11:57:14 PM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Toluene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Methyl tert-butyl ether (MTBE)	64	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2-Dichloroethane (EDC)	18	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Naphthalene	ND	2.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Acetone	ND	10		µg/L	1	8/26/2015 7:53:22 PM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Bromoform	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Bromomethane	ND	3.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
2-Butanone	ND	10		µg/L	1	8/26/2015 7:53:22 PM	R28474
Carbon disulfide	ND	10		µg/L	1	8/26/2015 7:53:22 PM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Chloroethane	ND	2.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Chloroform	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Chloromethane	ND	3.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
cis-1,2-DCE	1.7	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:25:00 AM

Lab ID: 1508B80-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,1-Dichloroethane	28	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,1-Dichloroethene	47	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
2-Hexanone	ND	10		µg/L	1	8/26/2015 7:53:22 PM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 7:53:22 PM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Styrene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,1,1-Trichloroethane	4.8	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,1,2-Trichloroethane	1.7	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Trichloroethene (TCE)	3.2	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 7:53:22 PM	R28474
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 7:53:22 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:25:00 AM

Lab ID: 1508B80-008

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	8/26/2015 7:53:22 PM	R28474
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	8/26/2015 7:53:22 PM	R28474
Surr: Dibromofluoromethane	103	70-130		%REC	1	8/26/2015 7:53:22 PM	R28474
Surr: Toluene-d8	92.5	70-130		%REC	1	8/26/2015 7:53:22 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:45:00 AM

Lab ID: 1508B80-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/9/2015 5:56:10 PM	B28733
Lead	0.00051	0.00050		mg/L	1	9/9/2015 5:59:15 PM	B28733
Selenium	ND	0.010		mg/L	10	9/9/2015 10:26:07 PM	B28733
Uranium	0.067	0.0025	*	mg/L	5	9/9/2015 5:56:10 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 11:18:38 AM	R28495
Chloride	580	25		mg/L	50	9/1/2015 11:50:34 PM	R28611
Bromide	1.4	0.50		mg/L	5	8/26/2015 11:18:38 AM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 11:18:38 AM	R28495
Sulfate	110	2.5		mg/L	5	8/26/2015 11:18:38 AM	R28495
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 11:39:12 AM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.077	0.0020		mg/L	1	9/3/2015 7:08:42 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:08:42 PM	D28647
Calcium	36	1.0		mg/L	1	9/3/2015 7:08:42 PM	D28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:08:42 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:08:42 PM	D28647
Iron	0.57	0.020	*	mg/L	1	9/3/2015 7:08:42 PM	D28647
Magnesium	6.8	1.0		mg/L	1	9/3/2015 7:08:42 PM	D28647
Manganese	0.060	0.0020	*	mg/L	1	9/3/2015 7:08:42 PM	D28647
Potassium	1.2	1.0		mg/L	1	9/3/2015 7:08:42 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:08:42 PM	D28647
Sodium	660	10		mg/L	10	9/4/2015 6:43:31 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 6:41:33 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.24	0.0020		mg/L	1	9/2/2015 4:16:50 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:16:50 PM	21085
Chromium	0.0072	0.0060		mg/L	1	9/2/2015 4:16:50 PM	21085
Copper	ND	0.0060		mg/L	1	9/2/2015 4:16:50 PM	21085
Iron	6.1	0.20	*	mg/L	10	9/2/2015 5:53:54 PM	21085
Manganese	0.30	0.0020	*	mg/L	1	9/2/2015 4:16:50 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:16:50 PM	21085
Zinc	0.029	0.010		mg/L	1	9/2/2015 4:16:50 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0037	0.0010		mg/L	1	9/10/2015 6:32:55 PM	21085
Lead	0.0072	0.00050		mg/L	1	9/10/2015 6:32:55 PM	21085
Selenium	ND	0.010		mg/L	10	9/10/2015 8:45:31 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:45:00 AM

Lab ID: 1508B80-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.073	0.0050	*	mg/L	10	9/10/2015 8:45:31 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:28:22 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.42	0.10	D	mg/L	2	8/26/2015 8:48:20 PM	A28474
Surr: BFB	92.6	70-130	D	%REC	2	8/26/2015 8:48:20 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 7:22:59 PM	20964
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 7:22:59 PM	20964
Surr: DNOP	116	72-136		%REC	1	8/26/2015 7:22:59 PM	20964
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Acenaphthylene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Aniline	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Anthracene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Azobenzene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Benzoic acid	ND	20		µg/L	1	8/27/2015 10:54:09 AM	20975
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Carbazole	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Chrysene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:45:00 AM

Lab ID: 1508B80-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Dibenzofuran	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 10:54:09 AM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 10:54:09 AM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 10:54:09 AM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Fluoranthene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Fluorene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Hexachloroethane	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Isophorone	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2-Methylphenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Naphthalene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Nitrobenzene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 10:54:09 AM	20975
Phenanthrene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:45:00 AM

Lab ID: 1508B80-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Pyrene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Pyridine	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 10:54:09 AM	20975
Surr: 2-Fluorophenol	83.1	14.9-111		%REC	1	8/27/2015 10:54:09 AM	20975
Surr: Phenol-d5	74.1	11.3-108		%REC	1	8/27/2015 10:54:09 AM	20975
Surr: 2,4,6-Tribromophenol	122	15.7-154		%REC	1	8/27/2015 10:54:09 AM	20975
Surr: Nitrobenzene-d5	117	47.8-106	S	%REC	1	8/27/2015 10:54:09 AM	20975
Surr: 2-Fluorobiphenyl	106	21.3-123		%REC	1	8/27/2015 10:54:09 AM	20975
Surr: 4-Terphenyl-d14	81.8	14.3-135		%REC	1	8/27/2015 10:54:09 AM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Toluene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Ethylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Methyl tert-butyl ether (MTBE)	490	20		µg/L	20	8/26/2015 8:20:51 PM	R28474
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2-Dichloroethane (EDC)	22	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Naphthalene	ND	4.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1-Methylnaphthalene	ND	8.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
2-Methylnaphthalene	ND	8.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Acetone	ND	20	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Bromobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Bromodichloromethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Bromoform	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Bromomethane	ND	6.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
2-Butanone	ND	20	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Carbon disulfide	ND	20	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Carbon Tetrachloride	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Chlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Chloroethane	ND	4.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Chloroform	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Chloromethane	ND	6.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
2-Chlorotoluene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
4-Chlorotoluene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
cis-1,2-DCE	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:45:00 AM

Lab ID: 1508B80-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Dibromochloromethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Dibromomethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,1-Dichloroethane	19	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,1-Dichloroethene	38	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2-Dichloropropane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,3-Dichloropropane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
2,2-Dichloropropane	ND	4.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,1-Dichloropropene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Hexachlorobutadiene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
2-Hexanone	ND	20	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Isopropylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
4-Isopropyltoluene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
4-Methyl-2-pentanone	ND	20	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Methylene Chloride	ND	6.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
n-Butylbenzene	ND	6.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
n-Propylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
sec-Butylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Styrene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
tert-Butylbenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
trans-1,2-DCE	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Trichlorofluoromethane	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Vinyl chloride	ND	2.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474
Xylenes, Total	ND	3.0	D	µg/L	2	8/26/2015 8:48:20 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:45:00 AM

Lab ID: 1508B80-009

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	96.9	70-130	D	%REC	2	8/26/2015 8:48:20 PM	R28474
Surr: 4-Bromofluorobenzene	101	70-130	D	%REC	2	8/26/2015 8:48:20 PM	R28474
Surr: Dibromofluoromethane	112	70-130	D	%REC	2	8/26/2015 8:48:20 PM	R28474
Surr: Toluene-d8	93.4	70-130	D	%REC	2	8/26/2015 8:48:20 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 12:35:00 PM

Lab ID: 1508B80-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/9/2015 6:02:19 PM	B28733
Lead	ND	0.00050		mg/L	1	9/9/2015 6:05:24 PM	B28733
Selenium	0.0024	0.0010		mg/L	1	9/9/2015 6:05:24 PM	B28733
Uranium	0.042	0.0025	*	mg/L	5	9/9/2015 6:02:19 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 11:43:28 AM	R28495
Chloride	95	10		mg/L	20	8/26/2015 11:55:53 AM	R28495
Bromide	0.61	0.50		mg/L	5	8/26/2015 11:43:28 AM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 11:43:28 AM	R28495
Sulfate	260	10		mg/L	20	8/26/2015 11:55:53 AM	R28495
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 11:51:37 AM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.054	0.0020		mg/L	1	9/3/2015 7:10:43 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:10:43 PM	D28647
Calcium	87	1.0		mg/L	1	9/3/2015 7:10:43 PM	D28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:10:43 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:10:43 PM	D28647
Iron	ND	0.020		mg/L	1	9/3/2015 7:10:43 PM	D28647
Magnesium	18	1.0		mg/L	1	9/3/2015 7:10:43 PM	D28647
Manganese	0.28	0.0020	*	mg/L	1	9/3/2015 7:10:43 PM	D28647
Potassium	1.4	1.0		mg/L	1	9/3/2015 7:10:43 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:10:43 PM	D28647
Sodium	310	5.0		mg/L	5	9/4/2015 6:47:20 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 6:45:26 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.74	0.0020		mg/L	1	9/2/2015 4:18:38 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:18:38 PM	21085
Chromium	0.015	0.0060		mg/L	1	9/2/2015 4:18:38 PM	21085
Copper	0.010	0.0060		mg/L	1	9/2/2015 4:18:38 PM	21085
Iron	14	0.40	*	mg/L	20	9/2/2015 5:57:41 PM	21085
Manganese	1.6	0.010	*	mg/L	5	9/2/2015 5:55:53 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:18:38 PM	21085
Zinc	0.048	0.010		mg/L	1	9/2/2015 4:18:38 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0020	0.0010		mg/L	1	9/10/2015 6:35:56 PM	21085
Lead	0.022	0.00050	*	mg/L	1	9/10/2015 6:35:56 PM	21085
Selenium	0.0019	0.0010		mg/L	1	9/10/2015 6:35:56 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 12:35:00 PM

Lab ID: 1508B80-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.049	0.0025	*	mg/L	5	9/10/2015 8:48:31 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:30:26 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.47	0.050		mg/L	1	8/26/2015 9:43:15 PM	A28474
Surr: BFB	95.8	70-130		%REC	1	8/26/2015 9:43:15 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 7:50:00 PM	20965
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 7:50:00 PM	20965
Surr: DNOP	118	72-136		%REC	1	8/26/2015 7:50:00 PM	20965
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Acenaphthylene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Aniline	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Anthracene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Azobenzene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Benzoic acid	ND	20		µg/L	1	8/27/2015 11:23:49 AM	20975
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Carbazole	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Chrysene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 12:35:00 PM

Lab ID: 1508B80-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Dibenzofuran	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 11:23:49 AM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 11:23:49 AM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 11:23:49 AM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Fluoranthene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Fluorene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Hexachloroethane	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Isophorone	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2-Methylphenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Naphthalene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Nitrobenzene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 11:23:49 AM	20975
Phenanthrene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 12:35:00 PM

Lab ID: 1508B80-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Pyrene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Pyridine	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 11:23:49 AM	20975
Surr: 2-Fluorophenol	48.3	14.9-111		%REC	1	8/27/2015 11:23:49 AM	20975
Surr: Phenol-d5	42.9	11.3-108		%REC	1	8/27/2015 11:23:49 AM	20975
Surr: 2,4,6-Tribromophenol	76.0	15.7-154		%REC	1	8/27/2015 11:23:49 AM	20975
Surr: Nitrobenzene-d5	65.7	47.8-106		%REC	1	8/27/2015 11:23:49 AM	20975
Surr: 2-Fluorobiphenyl	64.8	21.3-123		%REC	1	8/27/2015 11:23:49 AM	20975
Surr: 4-Terphenyl-d14	56.1	14.3-135		%REC	1	8/27/2015 11:23:49 AM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Toluene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Methyl tert-butyl ether (MTBE)	630	10		µg/L	10	8/26/2015 9:15:50 PM	R28474
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Naphthalene	ND	2.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Acetone	ND	10		µg/L	1	8/26/2015 9:43:15 PM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Bromoform	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Bromomethane	ND	3.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
2-Butanone	ND	10		µg/L	1	8/26/2015 9:43:15 PM	R28474
Carbon disulfide	ND	10		µg/L	1	8/26/2015 9:43:15 PM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Chloroethane	ND	2.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Chloroform	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Chloromethane	ND	3.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 12:35:00 PM

Lab ID: 1508B80-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
2-Hexanone	ND	10		µg/L	1	8/26/2015 9:43:15 PM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 9:43:15 PM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Styrene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 9:43:15 PM	R28474
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 9:43:15 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 12:35:00 PM

Lab ID: 1508B80-010

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%REC	1	8/26/2015 9:43:15 PM	R28474
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	8/26/2015 9:43:15 PM	R28474
Surr: Dibromofluoromethane	105	70-130		%REC	1	8/26/2015 9:43:15 PM	R28474
Surr: Toluene-d8	95.4	70-130		%REC	1	8/26/2015 9:43:15 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:52:00 AM

Lab ID: 1508B80-011

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/9/2015 6:08:28 PM	B28733
Lead	ND	0.0025		mg/L	5	9/9/2015 6:08:28 PM	B28733
Selenium	0.0078	0.0050		mg/L	5	9/9/2015 6:08:28 PM	B28733
Uranium	0.087	0.0025	*	mg/L	5	9/9/2015 6:08:28 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 12:08:17 PM	R28495
Chloride	3400	250		mg/L	500	9/2/2015 12:27:48 AM	R28611
Bromide	1.7	0.50		mg/L	5	8/26/2015 12:08:17 PM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 12:08:17 PM	R28495
Sulfate	890	10		mg/L	20	8/26/2015 12:20:43 PM	R28495
Nitrate+Nitrite as N	ND	4.0		mg/L	20	9/4/2015 12:40:12 AM	R28665
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.086	0.0020		mg/L	1	9/3/2015 7:12:37 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:12:37 PM	D28647
Calcium	400	10		mg/L	10	9/4/2015 6:56:44 PM	B28671
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:12:37 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:12:37 PM	D28647
Iron	0.039	0.020		mg/L	1	9/3/2015 7:12:37 PM	D28647
Magnesium	78	1.0		mg/L	1	9/3/2015 7:12:37 PM	D28647
Manganese	0.18	0.0020	*	mg/L	1	9/3/2015 7:12:37 PM	D28647
Potassium	11	1.0		mg/L	1	9/3/2015 7:12:37 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:12:37 PM	D28647
Sodium	2500	50		mg/L	50	9/4/2015 6:58:42 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 6:49:17 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.19	0.0020		mg/L	1	9/2/2015 4:20:28 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:20:28 PM	21085
Chromium	ND	0.0060		mg/L	1	9/2/2015 4:20:28 PM	21085
Copper	ND	0.0060		mg/L	1	9/2/2015 4:20:28 PM	21085
Iron	3.4	0.20	*	mg/L	10	9/2/2015 5:59:40 PM	21085
Manganese	0.24	0.0020	*	mg/L	1	9/2/2015 4:20:28 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:20:28 PM	21085
Zinc	0.016	0.010		mg/L	1	9/2/2015 4:20:28 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/10/2015 6:38:57 PM	21085
Lead	ND	0.0050		mg/L	10	9/10/2015 6:38:57 PM	21085
Selenium	ND	0.010		mg/L	10	9/10/2015 6:38:57 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:52:00 AM

Lab ID: 1508B80-011

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.081	0.0050	*	mg/L	10	9/10/2015 6:38:57 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:36:46 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/26/2015 10:10:38 PM	A28474
Surr: BFB	97.7	70-130		%REC	1	8/26/2015 10:10:38 PM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 9:11:46 PM	20965
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 9:11:46 PM	20965
Surr: DNOP	117	72-136		%REC	1	8/26/2015 9:11:46 PM	20965
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Acenaphthylene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Aniline	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Anthracene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Azobenzene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Benzoic acid	ND	20		µg/L	1	8/27/2015 11:53:29 AM	20975
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Carbazole	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Chrysene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:52:00 AM

Lab ID: 1508B80-011

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Dibenzofuran	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 11:53:29 AM	20975
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 11:53:29 AM	20975
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 11:53:29 AM	20975
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Fluoranthene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Fluorene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Hexachloroethane	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Isophorone	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
1-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2-Methylphenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Naphthalene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Nitrobenzene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 11:53:29 AM	20975
Phenanthrene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:52:00 AM

Lab ID: 1508B80-011

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Pyrene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Pyridine	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 11:53:29 AM	20975
Surr: 2-Fluorophenol	54.0	14.9-111		%REC	1	8/27/2015 11:53:29 AM	20975
Surr: Phenol-d5	51.6	11.3-108		%REC	1	8/27/2015 11:53:29 AM	20975
Surr: 2,4,6-Tribromophenol	80.4	15.7-154		%REC	1	8/27/2015 11:53:29 AM	20975
Surr: Nitrobenzene-d5	77.3	47.8-106		%REC	1	8/27/2015 11:53:29 AM	20975
Surr: 2-Fluorobiphenyl	73.9	21.3-123		%REC	1	8/27/2015 11:53:29 AM	20975
Surr: 4-Terphenyl-d14	64.2	14.3-135		%REC	1	8/27/2015 11:53:29 AM	20975
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Toluene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Ethylbenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Naphthalene	ND	2.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Acetone	ND	10		µg/L	1	8/26/2015 10:10:38 PM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Bromoform	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Bromomethane	ND	3.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
2-Butanone	ND	10		µg/L	1	8/26/2015 10:10:38 PM	R28474
Carbon disulfide	ND	10		µg/L	1	8/26/2015 10:10:38 PM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Chloroethane	ND	2.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Chloroform	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Chloromethane	ND	3.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
cis-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:52:00 AM

Lab ID: 1508B80-011

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,1-Dichloroethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,1-Dichloroethene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
2-Hexanone	ND	10		µg/L	1	8/26/2015 10:10:38 PM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/26/2015 10:10:38 PM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Styrene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/26/2015 10:10:38 PM	R28474
Xylenes, Total	ND	1.5		µg/L	1	8/26/2015 10:10:38 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 8:52:00 AM

Lab ID: 1508B80-011

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%REC	1	8/26/2015 10:10:38 PM	R28474
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	8/26/2015 10:10:38 PM	R28474
Surr: Dibromofluoromethane	99.6	70-130		%REC	1	8/26/2015 10:10:38 PM	R28474
Surr: Toluene-d8	96.5	70-130		%REC	1	8/26/2015 10:10:38 PM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:15:00 AM

Lab ID: 1508B80-012

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/9/2015 10:29:10 PM	B28733
Lead	0.0013	0.00050		mg/L	1	9/9/2015 6:26:57 PM	B28733
Selenium	0.049	0.0050		mg/L	5	9/9/2015 6:14:37 PM	B28733
Uranium	0.026	0.0025		mg/L	5	9/9/2015 6:14:37 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 12:57:56 PM	R28495
Chloride	900	25		mg/L	50	9/2/2015 12:40:12 AM	R28611
Bromide	2.2	0.50		mg/L	5	8/26/2015 12:57:56 PM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 12:57:56 PM	R28495
Sulfate	79	2.5		mg/L	5	8/26/2015 12:57:56 PM	R28495
Nitrate+Nitrite as N	5.6	1.0		mg/L	5	8/27/2015 12:53:41 PM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.097	0.0020		mg/L	1	9/3/2015 7:14:33 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:14:33 PM	D28647
Calcium	16	1.0		mg/L	1	9/3/2015 7:14:33 PM	D28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:14:33 PM	D28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:14:33 PM	D28647
Iron	1.4	0.10	*	mg/L	5	9/4/2015 7:02:38 PM	B28671
Magnesium	2.3	1.0		mg/L	1	9/3/2015 7:14:33 PM	D28647
Manganese	0.044	0.0020		mg/L	1	9/3/2015 7:14:33 PM	D28647
Potassium	3.5	1.0		mg/L	1	9/3/2015 7:14:33 PM	D28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:14:33 PM	D28647
Sodium	650	10		mg/L	10	9/4/2015 7:04:35 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 7:00:39 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.27	0.0020		mg/L	1	9/2/2015 4:22:10 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:22:10 PM	21085
Chromium	0.0063	0.0060		mg/L	1	9/2/2015 4:22:10 PM	21085
Copper	ND	0.0060		mg/L	1	9/2/2015 4:22:10 PM	21085
Iron	9.0	0.40	*	mg/L	20	9/2/2015 6:01:36 PM	21085
Manganese	0.35	0.0020	*	mg/L	1	9/2/2015 4:22:10 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:22:10 PM	21085
Zinc	0.034	0.010		mg/L	1	9/2/2015 4:22:10 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/11/2015 1:52:32 PM	21085
Lead	0.012	0.00050		mg/L	1	9/10/2015 6:44:58 PM	21085
Selenium	0.044	0.0050		mg/L	5	9/10/2015 8:51:32 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:15:00 AM

Lab ID: 1508B80-012

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.029	0.0025		mg/L	5	9/10/2015 8:51:32 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:38:52 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/27/2015 12:55:17 AM	A28474
Surr: BFB	92.2	70-130		%REC	1	8/27/2015 12:55:17 AM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 9:38:59 PM	20965
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 9:38:59 PM	20965
Surr: DNOP	113	72-136		%REC	1	8/26/2015 9:38:59 PM	20965
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Acenaphthylene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Aniline	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Anthracene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Azobenzene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Benz(a)anthracene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Benzo(a)pyrene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Benzo(b)fluoranthene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Benzo(g,h,i)perylene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Benzo(k)fluoranthene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Benzoic acid	ND	29	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Benzyl alcohol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Bis(2-chloroethoxy)methane	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Bis(2-chloroethyl)ether	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Bis(2-chloroisopropyl)ether	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Bis(2-ethylhexyl)phthalate	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
4-Bromophenyl phenyl ether	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Butyl benzyl phthalate	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Carbazole	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
4-Chloro-3-methylphenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
4-Chloroaniline	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2-Chloronaphthalene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2-Chlorophenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
4-Chlorophenyl phenyl ether	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Chrysene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Di-n-butyl phthalate	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:15:00 AM

Lab ID: 1508B80-012

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Dibenz(a,h)anthracene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Dibenzofuran	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
1,2-Dichlorobenzene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
1,3-Dichlorobenzene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
1,4-Dichlorobenzene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
3,3'-Dichlorobenzidine	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Diethyl phthalate	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Dimethyl phthalate	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2,4-Dichlorophenol	ND	29	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2,4-Dimethylphenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
4,6-Dinitro-2-methylphenol	ND	29	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2,4-Dinitrophenol	ND	29	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2,4-Dinitrotoluene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2,6-Dinitrotoluene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Fluoranthene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Fluorene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Hexachlorobenzene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Hexachlorobutadiene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Hexachlorocyclopentadiene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Hexachloroethane	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Indeno(1,2,3-cd)pyrene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Isophorone	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
1-Methylnaphthalene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2-Methylnaphthalene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2-Methylphenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
3+4-Methylphenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
N-Nitrosodi-n-propylamine	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
N-Nitrosodimethylamine	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
N-Nitrosodiphenylamine	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Naphthalene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2-Nitroaniline	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
3-Nitroaniline	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
4-Nitroaniline	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Nitrobenzene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2-Nitrophenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
4-Nitrophenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Pentachlorophenol	ND	29	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Phenanthrene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:15:00 AM

Lab ID: 1508B80-012

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Pyrene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Pyridine	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
1,2,4-Trichlorobenzene	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2,4,5-Trichlorophenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
2,4,6-Trichlorophenol	ND	14	D	µg/L	1	8/27/2015 7:51:50 PM	21021
Surr: 2-Fluorophenol	69.3	14.9-111	D	%REC	1	8/27/2015 7:51:50 PM	21021
Surr: Phenol-d5	50.8	11.3-108	D	%REC	1	8/27/2015 7:51:50 PM	21021
Surr: 2,4,6-Tribromophenol	100	15.7-154	D	%REC	1	8/27/2015 7:51:50 PM	21021
Surr: Nitrobenzene-d5	90.6	47.8-106	D	%REC	1	8/27/2015 7:51:50 PM	21021
Surr: 2-Fluorobiphenyl	88.1	21.3-123	D	%REC	1	8/27/2015 7:51:50 PM	21021
Surr: 4-Terphenyl-d14	87.0	14.3-135	D	%REC	1	8/27/2015 7:51:50 PM	21021
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Toluene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Ethylbenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2-Dichloroethane (EDC)	1.3	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Naphthalene	ND	2.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Acetone	ND	10		µg/L	1	8/27/2015 12:55:17 AM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Bromoform	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Bromomethane	ND	3.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
2-Butanone	ND	10		µg/L	1	8/27/2015 12:55:17 AM	R28474
Carbon disulfide	ND	10		µg/L	1	8/27/2015 12:55:17 AM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Chloroethane	ND	2.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Chloroform	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Chloromethane	ND	3.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
cis-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:15:00 AM

Lab ID: 1508B80-012

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,1-Dichloroethane	1.8	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,1-Dichloroethene	2.1	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
2-Hexanone	ND	10		µg/L	1	8/27/2015 12:55:17 AM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2015 12:55:17 AM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Styrene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/27/2015 12:55:17 AM	R28474
Xylenes, Total	ND	1.5		µg/L	1	8/27/2015 12:55:17 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 11:15:00 AM

Lab ID: 1508B80-012

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	8/27/2015 12:55:17 AM	R28474
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	8/27/2015 12:55:17 AM	R28474
Surr: Dibromofluoromethane	104	70-130		%REC	1	8/27/2015 12:55:17 AM	R28474
Surr: Toluene-d8	96.3	70-130		%REC	1	8/27/2015 12:55:17 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:35:00 AM

Lab ID: 1508B80-013

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/9/2015 6:30:02 PM	B28733
Lead	ND	0.00050		mg/L	1	9/9/2015 6:33:07 PM	B28733
Selenium	0.0075	0.0050		mg/L	5	9/9/2015 6:30:02 PM	B28733
Uranium	0.029	0.0025		mg/L	5	9/9/2015 6:30:02 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.62	0.50		mg/L	5	8/26/2015 1:22:46 PM	R28495
Chloride	930	50		mg/L	100	9/4/2015 12:27:47 AM	R28665
Bromide	2.0	0.50		mg/L	5	8/26/2015 1:22:46 PM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 1:22:46 PM	R28495
Sulfate	130	2.5		mg/L	5	8/26/2015 1:22:46 PM	R28495
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 1:06:05 PM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.078	0.0020		mg/L	1	9/3/2015 7:16:16 PM	E28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:16:16 PM	E28647
Calcium	21	1.0		mg/L	1	9/3/2015 7:16:16 PM	E28647
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:16:16 PM	E28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:16:16 PM	E28647
Iron	0.046	0.020		mg/L	1	9/3/2015 7:16:16 PM	E28647
Magnesium	2.7	1.0		mg/L	1	9/3/2015 7:16:16 PM	E28647
Manganese	0.39	0.0020	*	mg/L	1	9/3/2015 7:16:16 PM	E28647
Potassium	2.1	1.0		mg/L	1	9/3/2015 7:16:16 PM	E28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:16:16 PM	E28647
Sodium	690	10		mg/L	10	9/4/2015 7:08:28 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 7:06:28 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.097	0.0020		mg/L	1	9/2/2015 4:30:17 PM	21085
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:30:17 PM	21085
Chromium	ND	0.0060		mg/L	1	9/2/2015 4:30:17 PM	21085
Copper	ND	0.0060		mg/L	1	9/2/2015 4:30:17 PM	21085
Iron	0.75	0.020	*	mg/L	1	9/2/2015 4:30:17 PM	21085
Manganese	0.36	0.0020	*	mg/L	1	9/2/2015 4:30:17 PM	21085
Silver	ND	0.0050		mg/L	1	9/2/2015 4:30:17 PM	21085
Zinc	0.014	0.010		mg/L	1	9/2/2015 4:30:17 PM	21085
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/10/2015 8:54:32 PM	21085
Lead	0.0012	0.00050		mg/L	1	9/10/2015 6:47:58 PM	21085
Selenium	0.0045	0.0010		mg/L	1	9/10/2015 6:47:58 PM	21085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:35:00 AM

Lab ID: 1508B80-013

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.032	0.0025	*	mg/L	5	9/10/2015 8:54:32 PM	21085
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:40:58 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.21	0.050		mg/L	1	8/27/2015 1:22:48 AM	A28474
Surr: BFB	107	70-130		%REC	1	8/27/2015 1:22:48 AM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	52	1.0		mg/L	1	8/26/2015 10:06:35 PM	20965
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 10:06:35 PM	20965
Surr: DNOP	119	72-136		%REC	1	8/26/2015 10:06:35 PM	20965
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Acenaphthylene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Aniline	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Anthracene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Azobenzene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Benzoic acid	ND	20		µg/L	1	8/27/2015 9:49:22 PM	20976
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Carbazole	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Chrysene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:35:00 AM

Lab ID: 1508B80-013

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Dibenzofuran	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 9:49:22 PM	20976
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 9:49:22 PM	20976
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 9:49:22 PM	20976
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Fluoranthene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Fluorene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Hexachloroethane	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Isophorone	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
1-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2-Methylphenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Naphthalene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Nitrobenzene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 9:49:22 PM	20976
Phenanthrene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:35:00 AM

Lab ID: 1508B80-013

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Pyrene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Pyridine	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 9:49:22 PM	20976
Surr: 2-Fluorophenol	62.6	14.9-111		%REC	1	8/27/2015 9:49:22 PM	20976
Surr: Phenol-d5	59.5	11.3-108		%REC	1	8/27/2015 9:49:22 PM	20976
Surr: 2,4,6-Tribromophenol	0	15.7-154	S	%REC	1	8/27/2015 9:49:22 PM	20976
Surr: Nitrobenzene-d5	96.5	47.8-106		%REC	1	8/27/2015 9:49:22 PM	20976
Surr: 2-Fluorobiphenyl	86.1	21.3-123		%REC	1	8/27/2015 9:49:22 PM	20976
Surr: 4-Terphenyl-d14	67.9	14.3-135		%REC	1	8/27/2015 9:49:22 PM	20976
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	2.8	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Toluene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Ethylbenzene	1.0	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2,4-Trimethylbenzene	6.0	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,3,5-Trimethylbenzene	4.1	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Naphthalene	21	2.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1-Methylnaphthalene	16	4.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
2-Methylnaphthalene	7.9	4.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Acetone	14	10		µg/L	1	8/27/2015 1:22:48 AM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Bromoform	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Bromomethane	ND	3.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
2-Butanone	ND	10		µg/L	1	8/27/2015 1:22:48 AM	R28474
Carbon disulfide	ND	10		µg/L	1	8/27/2015 1:22:48 AM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Chloroethane	ND	2.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Chloroform	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Chloromethane	ND	3.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
cis-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:35:00 AM

Lab ID: 1508B80-013

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,1-Dichloroethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,1-Dichloroethene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
2-Hexanone	ND	10		µg/L	1	8/27/2015 1:22:48 AM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2015 1:22:48 AM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Styrene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/27/2015 1:22:48 AM	R28474
Xylenes, Total	17	1.5		µg/L	1	8/27/2015 1:22:48 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:35:00 AM

Lab ID: 1508B80-013

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%REC	1	8/27/2015 1:22:48 AM	R28474
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/27/2015 1:22:48 AM	R28474
Surr: Dibromofluoromethane	108	70-130		%REC	1	8/27/2015 1:22:48 AM	R28474
Surr: Toluene-d8	95.9	70-130		%REC	1	8/27/2015 1:22:48 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:04:00 AM

Lab ID: 1508B80-014

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.020	*	mg/L	20	9/9/2015 10:32:13 PM	B28733
Lead	ND	0.010		mg/L	20	9/9/2015 10:32:13 PM	B28733
Selenium	0.060	0.020	*	mg/L	20	9/9/2015 10:32:13 PM	B28733
Uranium	0.28	0.010	*	mg/L	20	9/9/2015 10:32:13 PM	B28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	2.0		mg/L	20	8/26/2015 1:59:59 PM	R28495
Chloride	17000	1000		mg/L	2E	9/2/2015 1:05:01 AM	R28611
Bromide	15	2.0		mg/L	20	8/26/2015 1:59:59 PM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 1:47:34 PM	R28495
Sulfate	1700	1000		mg/L	2E	9/2/2015 1:05:01 AM	R28611
Nitrate+Nitrite as N	ND	10		mg/L	50	9/2/2015 1:29:50 AM	R28611
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	9/3/2015 7:18:12 PM	E28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:18:12 PM	E28647
Calcium	3100	100		mg/L	100	9/4/2015 7:14:32 PM	B28671
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:18:12 PM	E28647
Copper	ND	0.0060		mg/L	1	9/3/2015 7:18:12 PM	E28647
Iron	0.062	0.020		mg/L	1	9/3/2015 7:18:12 PM	E28647
Magnesium	480	10		mg/L	10	9/4/2015 7:12:37 PM	B28671
Manganese	20	0.20	*	mg/L	100	9/4/2015 7:14:32 PM	B28671
Potassium	14	1.0		mg/L	1	9/3/2015 7:18:12 PM	E28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:18:12 PM	E28647
Sodium	6500	100		mg/L	100	9/4/2015 7:14:32 PM	B28671
Zinc	ND	0.10		mg/L	10	9/4/2015 7:12:37 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.31	0.010		mg/L	5	9/8/2015 12:47:22 PM	21148
Cadmium	ND	0.010		mg/L	5	9/8/2015 12:47:22 PM	21148
Chromium	ND	0.030		mg/L	5	9/8/2015 12:47:22 PM	21148
Copper	ND	0.030		mg/L	5	9/8/2015 12:47:22 PM	21148
Iron	6.6	0.20	*	mg/L	10	9/9/2015 12:44:30 PM	21148
Manganese	23	0.10	*	mg/L	50	9/9/2015 12:46:24 PM	21148
Silver	ND	0.025		mg/L	5	9/8/2015 12:47:22 PM	21148
Zinc	0.056	0.050		mg/L	5	9/8/2015 12:47:22 PM	21148
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.020	*	mg/L	20	9/11/2015 2:13:40 PM	21148
Lead	ND	0.010		mg/L	20	9/11/2015 2:13:40 PM	21148
Selenium	0.060	0.020	*	mg/L	20	9/11/2015 2:13:40 PM	21148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:04:00 AM

Lab ID: 1508B80-014

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.28	0.010	*	mg/L	20	9/11/2015 2:13:40 PM	21148
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/4/2015 4:43:04 PM	21147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/27/2015 1:50:21 AM	A28474
Surr: BFB	100	70-130		%REC	1	8/27/2015 1:50:21 AM	A28474
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/26/2015 10:34:06 PM	20965
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 10:34:06 PM	20965
Surr: DNOP	109	72-136		%REC	1	8/26/2015 10:34:06 PM	20965
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Acenaphthylene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Aniline	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Anthracene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Azobenzene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Benzoic acid	ND	25	D	µg/L	1	8/27/2015 8:21:57 PM	21021
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Carbazole	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
4-Chloro-3-methylphenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2-Chlorophenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Chrysene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:04:00 AM

Lab ID: 1508B80-014

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Dibenzofuran	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2,4-Dichlorophenol	ND	25	D	µg/L	1	8/27/2015 8:21:57 PM	21021
2,4-Dimethylphenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
4,6-Dinitro-2-methylphenol	ND	25	D	µg/L	1	8/27/2015 8:21:57 PM	21021
2,4-Dinitrophenol	ND	25	D	µg/L	1	8/27/2015 8:21:57 PM	21021
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Fluoranthene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Fluorene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Hexachloroethane	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Isophorone	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
1-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2-Methylphenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
3+4-Methylphenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Naphthalene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Nitrobenzene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2-Nitrophenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
4-Nitrophenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
Pentachlorophenol	ND	25	D	µg/L	1	8/27/2015 8:21:57 PM	21021
Phenanthrene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:04:00 AM

Lab ID: 1508B80-014

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
Pyrene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
Pyridine	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 3:22:09 PM	20976
2,4,5-Trichlorophenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
2,4,6-Trichlorophenol	ND	12	D	µg/L	1	8/27/2015 8:21:57 PM	21021
Surr: 2-Fluorophenol	68.4	14.9-111	D	%REC	1	8/27/2015 8:21:57 PM	21021
Surr: Phenol-d5	49.8	11.3-108	D	%REC	1	8/27/2015 8:21:57 PM	21021
Surr: 2,4,6-Tribromophenol	100	15.7-154	D	%REC	1	8/27/2015 8:21:57 PM	21021
Surr: Nitrobenzene-d5	100	47.8-106		%REC	1	8/27/2015 3:22:09 PM	20976
Surr: 2-Fluorobiphenyl	95.7	21.3-123		%REC	1	8/27/2015 3:22:09 PM	20976
Surr: 4-Terphenyl-d14	87.1	14.3-135		%REC	1	8/27/2015 3:22:09 PM	20976
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Toluene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Ethylbenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Naphthalene	ND	2.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1-Methylnaphthalene	5.9	4.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
2-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Acetone	ND	10		µg/L	1	8/27/2015 1:50:21 AM	R28474
Bromobenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Bromodichloromethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Bromoform	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Bromomethane	ND	3.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
2-Butanone	ND	10		µg/L	1	8/27/2015 1:50:21 AM	R28474
Carbon disulfide	ND	10		µg/L	1	8/27/2015 1:50:21 AM	R28474
Carbon Tetrachloride	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Chlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Chloroethane	ND	2.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Chloroform	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Chloromethane	ND	3.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
2-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
4-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
cis-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:04:00 AM

Lab ID: 1508B80-014

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Dibromochloromethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Dibromomethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,1-Dichloroethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,1-Dichloroethene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,3-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
2,2-Dichloropropane	ND	2.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,1-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Hexachlorobutadiene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
2-Hexanone	ND	10		µg/L	1	8/27/2015 1:50:21 AM	R28474
Isopropylbenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
4-Isopropyltoluene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2015 1:50:21 AM	R28474
Methylene Chloride	ND	3.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
n-Butylbenzene	ND	3.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
n-Propylbenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
sec-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Styrene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
tert-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
trans-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Trichlorofluoromethane	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Vinyl chloride	ND	1.0		µg/L	1	8/27/2015 1:50:21 AM	R28474
Xylenes, Total	ND	1.5		µg/L	1	8/27/2015 1:50:21 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B80

Date Reported: 9/21/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 3RD QTR (MKTF)

Collection Date: 8/21/2015 10:04:00 AM

Lab ID: 1508B80-014

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	8/27/2015 1:50:21 AM	R28474
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	8/27/2015 1:50:21 AM	R28474
Surr: Dibromofluoromethane	104	70-130		%REC	1	8/27/2015 1:50:21 AM	R28474
Surr: Toluene-d8	94.5	70-130		%REC	1	8/27/2015 1:50:21 AM	R28474

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: D28647			RunNo: 28647						
Prep Date:	Analysis Date: 9/3/2015			SeqNo: 867614		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: D28647			RunNo: 28647						
Prep Date:	Analysis Date: 9/3/2015			SeqNo: 867615		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.49	0.020	0.5000	0	98.2	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.3	85	115			
Potassium	48	1.0	50.00	0	97.0	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.49	0.010	0.5000	0	98.2	85	115			

Sample ID LCSLL	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: D28647			RunNo: 28647						
Prep Date:	Analysis Date: 9/3/2015			SeqNo: 867616		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020	0.002000	0	80.0	50	150			
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Calcium	ND	1.0	0.5000	0	105	50	150			
Chromium	0.0060	0.0060	0.006000	0	100	50	150			
Copper	0.0070	0.0060	0.006000	0	117	50	150			
Iron	0.021	0.020	0.02000	0	105	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867616		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	ND	1.0	0.5000	0	108	50	150			
Manganese	ND	0.0020	0.002000	0	92.0	50	150			
Potassium	ND	1.0	0.5000	0	98.5	50	150			
Silver	ND	0.0050	0.005000	0	97.2	50	150			
Zinc	ND	0.010	0.005000	0	99.0	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: E28647			RunNo: 28647					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867618		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: E28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867619		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.1	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.099	0.0050	0.1000	0	99.5	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	LCSLL		SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: E28647			RunNo: 28647				
Prep Date:			Analysis Date: 9/3/2015			SeqNo: 867620		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	87.0	50	150			
Cadmium	0.0021	0.0020	0.002000	0	104	50	150			
Calcium	ND	1.0	0.5000	0	111	50	150			
Chromium	0.0060	0.0060	0.006000	0	100	50	150			
Copper	ND	0.0060	0.006000	0	95.7	50	150			
Iron	ND	0.020	0.02000	0	99.7	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	ND	0.0020	0.002000	0	91.0	50	150			
Potassium	ND	1.0	0.5000	0	98.1	50	150			
Silver	ND	0.0050	0.005000	0	98.8	50	150			

Sample ID	MB		SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	PBW		Batch ID: B28671			RunNo: 28671				
Prep Date:			Analysis Date: 9/4/2015			SeqNo: 868402		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: B28671			RunNo: 28671				
Prep Date:			Analysis Date: 9/4/2015			SeqNo: 868403		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.1	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Sodium	51	1.0	50.00	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868404		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	96.0	50	150			
Calcium	ND	1.0	0.5000	0	104	50	150			
Iron	0.021	0.020	0.02000	0	105	50	150			
Magnesium	ND	1.0	0.5000	0	106	50	150			
Manganese	ND	0.0020	0.002000	0	96.5	50	150			
Sodium	ND	1.0	0.5000	0	104	50	150			
Zinc	ND	0.010	0.005000	0	101	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-21085		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21085		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865835		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21085		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21085		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865836		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.9	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.49	0.0060	0.5000	0	97.0	85	115			
Copper	0.48	0.0060	0.5000	0	96.1	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Silver	0.095	0.0050	0.1000	0	95.1	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Sample ID	LLCS-21085		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21085		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865837		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0025	0.0020	0.002000	0	125	50	150			
Cadmium	ND	0.0020	0.002000	0	96.5	50	150			
Chromium	0.0072	0.0060	0.006000	0	120	50	150			
Copper	ND	0.0060	0.006000	0	99.2	50	150			
Iron	0.020	0.020	0.02000	0	102	50	150			
Manganese	ND	0.0020	0.002000	0	97.5	50	150			
Silver	ND	0.0050	0.005000	0	92.8	50	150			
Zinc	ND	0.010	0.005000	0	141	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	1508B80-004FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-1		Batch ID: 21085		RunNo: 28620					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866569		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.50	0.0060	0.5000	0.005240	99.4	70	130			
Copper	0.54	0.0060	0.5000	0	109	70	130			
Silver	0.11	0.0050	0.1000	0	106	70	130			
Zinc	0.50	0.010	0.5000	0.01388	97.2	70	130			

Sample ID	1508B80-004FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-1		Batch ID: 21085		RunNo: 28620					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866570		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	102	70	130	1.45	20	
Chromium	0.50	0.0060	0.5000	0.005240	98.2	70	130	1.21	20	
Copper	0.54	0.0060	0.5000	0	108	70	130	0.755	20	
Silver	0.10	0.0050	0.1000	0	104	70	130	1.17	20	
Zinc	0.49	0.010	0.5000	0.01388	96.1	70	130	1.10	20	

Sample ID	1508B80-004FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-1		Batch ID: 21085		RunNo: 28620					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866615		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.3	0.010	0.5000	2.751	101	70	130			
Manganese	2.6	0.010	0.5000	2.068	99.1	70	130			

Sample ID	1508B80-004FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-1		Batch ID: 21085		RunNo: 28620					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866616		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.2	0.010	0.5000	2.751	96.0	70	130	0.782	20	
Manganese	2.5	0.010	0.5000	2.068	95.9	70	130	0.636	20	

Sample ID	MB-21148	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 21148			RunNo: 28693					
Prep Date:	9/4/2015	Analysis Date: 9/8/2015			SeqNo: 869379		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-21148		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	21148		RunNo:	28693			
Prep Date:	9/4/2015		Analysis Date:	9/8/2015		SeqNo:	869379	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21148		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	21148		RunNo:	28693			
Prep Date:	9/4/2015		Analysis Date:	9/8/2015		SeqNo:	869380	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.4	85	115			
Cadmium	0.53	0.0020	0.5000	0	105	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.48	0.0060	0.5000	0	96.3	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Silver	0.10	0.0050	0.1000	0	99.9	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	LLLCS-21148		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	21148		RunNo:	28693			
Prep Date:	9/4/2015		Analysis Date:	9/8/2015		SeqNo:	869381	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	87.5	50	150			
Cadmium	ND	0.0020	0.002000	0	99.0	50	150			
Chromium	0.0061	0.0060	0.006000	0	102	50	150			
Copper	0.0065	0.0060	0.006000	0	109	50	150			
Iron	ND	0.020	0.02000	0	72.2	50	150			
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Silver	0.0054	0.0050	0.005000	0	108	50	150			
Zinc	ND	0.010	0.005000	0	87.2	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: D28672			RunNo: 28672						
Prep Date:	Analysis Date: 9/4/2015			SeqNo: 868550			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.012	0.00050	0.01250	0	97.9	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.012	0.00050	0.01250	0	97.5	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: D28672			RunNo: 28672						
Prep Date:	Analysis Date: 9/4/2015			SeqNo: 868553			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	97.0	50	150			
Lead	0.00051	0.00050	0.0005000	0	101	50	150			
Selenium	0.0010	0.0010	0.001000	0	104	50	150			
Uranium	ND	0.00050	0.0005000	0	98.5	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: D28672			RunNo: 28672						
Prep Date:	Analysis Date: 9/4/2015			SeqNo: 868556			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID 1508B80-008EMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: MKTF-31	Batch ID: B28733			RunNo: 28733						
Prep Date:	Analysis Date: 9/9/2015			SeqNo: 871099			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.001924	103	70	130			
Uranium	0.12	0.0025	0.06250	0.04721	112	70	130			

Sample ID 1508B80-008EMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: MKTF-31	Batch ID: B28733			RunNo: 28733						
Prep Date:	Analysis Date: 9/9/2015			SeqNo: 871100			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.014	0.00050	0.01250	.00005466	108	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28733		RunNo: 28733					
Prep Date:			Analysis Date: 9/9/2015		SeqNo: 871150		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Lead	0.012	0.00050	0.01250	0	99.2	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			
Uranium	0.012	0.00050	0.01250	0	98.4	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28733		RunNo: 28733					
Prep Date:			Analysis Date: 9/9/2015		SeqNo: 871153		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	102	50	150			
Lead	0.00053	0.00050	0.0005000	0	107	50	150			
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	ND	0.00050	0.0005000	0	97.1	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: B28733			RunNo: 28733					
Prep Date:		Analysis Date: 9/9/2015			SeqNo: 871156		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-21148		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	21148		RunNo:	28698			
Prep Date:	9/4/2015		Analysis Date:	9/8/2015		SeqNo:	869581		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21148		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	21148		RunNo:	28698			
Prep Date:	9/4/2015		Analysis Date:	9/8/2015		SeqNo:	869583		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			
Lead	0.013	0.00050	0.01250	0	104	85	115			
Selenium	0.024	0.0010	0.02500	0	97.8	85	115			
Uranium	0.013	0.00050	0.01250	0	105	85	115			

Sample ID	MSLLCS-21148		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	21148		RunNo:	28698			
Prep Date:	9/4/2015		Analysis Date:	9/8/2015		SeqNo:	869585		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	89.0	50	150			
Lead	0.00054	0.00050	0.0005000	0	109	50	150			
Selenium	ND	0.0010	0.001000	0	96.3	50	150			
Uranium	0.00053	0.00050	0.0005000	0	105	50	150			

Sample ID	1508B80-006FLLMS		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-23		Batch ID:	21085		RunNo:	28767			
Prep Date:	9/1/2015		Analysis Date:	9/10/2015		SeqNo:	872517		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.040	0.0050	0.02500	0.01439	102	70	130			
Lead	0.022	0.0025	0.01250	0.008848	106	70	130			
Selenium	0.028	0.0050	0.02500	0.004352	93.1	70	130			
Uranium	0.046	0.0025	0.01250	0.03159	114	70	130			

Sample ID	1508B80-006FLLMS		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-23		Batch ID:	21085		RunNo:	28767			
Prep Date:	9/1/2015		Analysis Date:	9/10/2015		SeqNo:	872518		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	1508B80-006FLLMS			SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-23			Batch ID:	21085		RunNo:	28767		
Prep Date:	9/1/2015			Analysis Date:	9/10/2015		SeqNo:	872518		
							Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.039	0.0050	0.02500	0.01439	100	70	130	1.01	20	
Lead	0.022	0.0025	0.01250	0.008848	105	70	130	0.633	20	
Selenium	0.027	0.0050	0.02500	0.004352	89.7	70	130	3.19	20	
Uranium	0.046	0.0025	0.01250	0.03159	111	70	130	0.719	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-21147	SampType: MBLK			TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID: 21147			RunNo: 28670					
Prep Date:	9/4/2015	Analysis Date: 9/4/2015			SeqNo: 868344		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-21147	SampType: LCS			TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID: 21147			RunNo: 28670					
Prep Date:	9/4/2015	Analysis Date: 9/4/2015			SeqNo: 868345		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	110	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28495	RunNo:	28495					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861647	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28495	RunNo:	28495					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861648	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.6	0.50	5.000	0	92.8	90	110			
Bromide	2.4	0.10	2.500	0	95.8	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.0	90	110			
Sulfate	9.5	0.50	10.00	0	94.9	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28522	RunNo:	28522					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	862614	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28522	RunNo:	28522					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	862615	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.7	0.20	3.500	0	105	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28522	RunNo:	28522					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	862706	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28522			RunNo: 28522						
Prep Date:	Analysis Date: 8/28/2015			SeqNo: 862708		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R28611			RunNo: 28611						
Prep Date:	Analysis Date: 9/1/2015			SeqNo: 865519		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28611			RunNo: 28611						
Prep Date:	Analysis Date: 9/1/2015			SeqNo: 865520		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.9	0.50	5.000	0	97.7	90	110			
Bromide	2.5	0.10	2.500	0	99.5	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.5	90	110			
Sulfate	10	0.50	10.00	0	99.6	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R28665			RunNo: 28665						
Prep Date:	Analysis Date: 9/3/2015			SeqNo: 868144		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28665			RunNo: 28665						
Prep Date:	Analysis Date: 9/3/2015			SeqNo: 868145		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28665	RunNo:	28665					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	868145	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	MB-20964	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 20964			RunNo: 28473					
Prep Date:	8/25/2015	Analysis Date: 8/26/2015			SeqNo: 860736		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.82		1.000		81.9	72	136			

Sample ID	LCS-20964		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20964		RunNo: 28473					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 860737		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	52.4	154			
Surr: DNOP	0.45		0.5000		90.3	72	136			

Sample ID	MB-20965	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 20965			RunNo: 28471					
Prep Date:	8/25/2015	Analysis Date: 8/26/2015			SeqNo: 861711		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		118	72	136			

Sample ID	LCS-20965		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20965		RunNo: 28471					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 861712		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	108	52.4	154			
Surr: DNOP	0.53		0.5000		106	72	136			

Sample ID	1508B80-010CMS	SampType: MS			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MKTF-33	Batch ID: 20965			RunNo: 28471					
Prep Date:	8/25/2015	Analysis Date: 8/26/2015			SeqNo: 861727		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	41.3	177			
Surr: DNOP	0.56		0.5000		113	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	1508B80-010CMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	MKTF-33	Batch ID:	20965	RunNo:	28471					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	861728	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	108	-94.6	317	8.59	22.1	
Surr: DNOP	0.54		0.5000		107	72	136	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28474	RunNo:	28474					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861384	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R28474				RunNo: 28474				
Prep Date:		Analysis Date: 8/26/2015				SeqNo: 861384	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R28474				RunNo: 28474				
Prep Date:		Analysis Date: 8/26/2015				SeqNo: 861385	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	19	1.0	20.00	0	97.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	100ng lcs		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R28474			RunNo: 28474				
Prep Date:	Analysis Date: 8/26/2015			SeqNo: 861385		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.1		10.00		91.2	70	130			

Sample ID	1508b80-004a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	MKTF-1	Batch ID: R28474			RunNo: 28474					
Prep Date:		Analysis Date: 8/26/2015			SeqNo: 861394		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	10000	5.0	100.0	10140	206	70	130			ES
Toluene	1000	5.0	100.0	956.9	88.2	70	130			E
Chlorobenzene	98	5.0	100.0	0	97.8	70	130			
1,1-Dichloroethene	150	5.0	100.0	51.28	95.3	70	130			
Trichloroethene (TCE)	100	5.0	100.0	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	50		50.00		99.0	70	130			
Surr: 4-Bromofluorobenzene	51		50.00		102	70	130			
Surr: Dibromofluoromethane	52		50.00		105	70	130			
Surr: Toluene-d8	46		50.00		92.4	70	130			

Sample ID	1508b80-004a msd			SampType: MSD		TestCode: EPA Method 8260B: VOLATILES				
Client ID:	MKTF-1		Batch ID: R28474		RunNo: 28474					
Prep Date:			Analysis Date: 8/26/2015		SeqNo: 861395		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	10000	5.0	100.0	10140	-75.4	70	130	2.76	20	ES
Toluene	1000	5.0	100.0	956.9	83.3	70	130	0.476	20	E
Chlorobenzene	95	5.0	100.0	0	95.0	70	130	2.83	20	
1,1-Dichloroethene	150	5.0	100.0	51.28	98.5	70	130	2.20	20	
Trichloroethene (TCE)	99	5.0	100.0	0	99.3	70	130	4.60	20	
Surr: 1,2-Dichloroethane-d4	49		50.00		97.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	50		50.00		99.9	70	130	0	0	
Surr: Dibromofluoromethane	52		50.00		103	70	130	0	0	
Surr: Toluene-d8	46		50.00		92.7	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-20975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861180	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-20975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20975	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861180	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		69.2	14.9	111			
Surr: Phenol-d5	130		200.0		64.9	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		76.1	15.7	154			
Surr: Nitrobenzene-d5	73		100.0		72.6	47.8	106			
Surr: 2-Fluorobiphenyl	69		100.0		69.4	21.3	123			
Surr: 4-Terphenyl-d14	130		100.0		125	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-20976	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20976	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861181	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-20976	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20976	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861181	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		71.1	14.9	111			
Surr: Phenol-d5	140		200.0		70.6	11.3	108			
Surr: 2,4,6-Tribromophenol	180		200.0		91.9	15.7	154			
Surr: Nitrobenzene-d5	76		100.0		75.6	47.8	106			
Surr: 2-Fluorobiphenyl	82		100.0		81.7	21.3	123			
Surr: 4-Terphenyl-d14	150		100.0		146	14.3	135			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	lcs-20975		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20975		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861184		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	87	10	100.0	0	87.1	47.8	99.7			
4-Chloro-3-methylphenol	170	10	200.0	0	83.4	58.1	103			
2-Chlorophenol	180	10	200.0	0	90.2	49.5	96.8			
1,4-Dichlorobenzene	91	10	100.0	0	91.3	40.4	89.4			S
2,4-Dinitrotoluene	60	10	100.0	0	60.2	38.6	91.3			
N-Nitrosodi-n-propylamine	83	10	100.0	0	83.5	53.9	95.6			
4-Nitrophenol	170	10	200.0	0	84.6	26.4	108			
Pentachlorophenol	170	20	200.0	0	83.3	36.5	86.6			
Phenol	170	10	200.0	0	85.3	29.3	108			
Pyrene	130	10	100.0	0	132	45.7	100			S
1,2,4-Trichlorobenzene	100	10	100.0	0	102	39.3	94.5			S
Surr: 2-Fluorophenol	180		200.0		88.3	14.9	111			
Surr: Phenol-d5	180		200.0		88.6	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		98.3	15.7	154			
Surr: Nitrobenzene-d5	95		100.0		94.9	47.8	106			
Surr: 2-Fluorobiphenyl	93		100.0		93.1	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		112	14.3	135			

Sample ID	lcs-20976		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20976		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861185		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	88	10	100.0	0	87.9	47.8	99.7			
4-Chloro-3-methylphenol	190	10	200.0	0	94.3	58.1	103			
2-Chlorophenol	180	10	200.0	0	89.6	49.5	96.8			
1,4-Dichlorobenzene	89	10	100.0	0	88.8	40.4	89.4			
2,4-Dinitrotoluene	60	10	100.0	0	60.1	38.6	91.3			
N-Nitrosodi-n-propylamine	94	10	100.0	0	93.8	53.9	95.6			
4-Nitrophenol	160	10	200.0	0	78.0	26.4	108			
Pentachlorophenol	160	20	200.0	0	78.4	36.5	86.6			
Phenol	180	10	200.0	0	88.9	29.3	108			
Pyrene	130	10	100.0	0	133	45.7	100			S
1,2,4-Trichlorobenzene	100	10	100.0	0	99.7	39.3	94.5			S
Surr: 2-Fluorophenol	170		200.0		85.6	14.9	111			
Surr: Phenol-d5	180		200.0		89.2	11.3	108			
Surr: 2,4,6-Tribromophenol	220		200.0		109	15.7	154			
Surr: Nitrobenzene-d5	93		100.0		92.8	47.8	106			
Surr: 2-Fluorobiphenyl	90		100.0		89.7	21.3	123			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	Ics-20976		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20976		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861185		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	150		100.0		148	14.3	135			S

Sample ID	Icsd-20975		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20975		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861187		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	90.6	47.8	99.7	3.92	28.2	
4-Chloro-3-methylphenol	190	10	200.0	0	95.8	58.1	103	13.9	24.4	
2-Chlorophenol	190	10	200.0	0	92.6	49.5	96.8	2.70	28.1	
1,4-Dichlorobenzene	92	10	100.0	0	92.2	40.4	89.4	0.981	31.2	S
2,4-Dinitrotoluene	66	10	100.0	0	65.6	38.6	91.3	8.59	44.4	
N-Nitrosodi-n-propylamine	93	10	100.0	0	92.5	53.9	95.6	10.3	24.2	
4-Nitrophenol	170	10	200.0	0	83.0	26.4	108	1.84	36.6	
Pentachlorophenol	170	20	200.0	0	86.9	36.5	86.6	4.31	29.5	S
Phenol	190	10	200.0	0	93.8	29.3	108	9.48	30	
Pyrene	130	10	100.0	0	134	45.7	100	1.47	31	S
1,2,4-Trichlorobenzene	100	10	100.0	0	100	39.3	94.5	1.80	24	S
Surr: 2-Fluorophenol	180		200.0		88.5	14.9	111	0	0	
Surr: Phenol-d5	180		200.0		89.1	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	210		200.0		107	15.7	154	0	0	
Surr: Nitrobenzene-d5	96		100.0		95.9	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	95		100.0		95.0	21.3	123	0	0	
Surr: 4-Terphenyl-d14	110		100.0		115	14.3	135	0	0	

Sample ID	Icsd-20976		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSS02		Batch ID: 20976		RunNo: 28486						
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861188		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	80	10	100.0	0	79.9	47.8	99.7	9.51	28.2		
4-Chloro-3-methylphenol	160	10	200.0	0	81.1	58.1	103	15.1	24.4		
2-Chlorophenol	150	10	200.0	0	76.7	49.5	96.8	15.4	28.1		
1,4-Dichlorobenzene	84	10	100.0	0	83.6	40.4	89.4	6.01	31.2		
2,4-Dinitrotoluene	61	10	100.0	0	60.7	38.6	91.3	1.03	44.4		
N-Nitrosodi-n-propylamine	75	10	100.0	0	75.5	53.9	95.6	21.6	24.2		
4-Nitrophenol	170	10	200.0	0	84.5	26.4	108	8.02	36.6		
Pentachlorophenol	160	20	200.0	0	81.6	36.5	86.6	3.90	29.5		
Phenol	160	10	200.0	0	80.0	29.3	108	10.5	30		
Pyrene	130	10	100.0	0	126	45.7	100	5.83	31	S	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	Icsd-20976		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20976		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861188		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	97	10	100.0	0	97.2	39.3	94.5	2.62	24	S
Surr: 2-Fluorophenol	150		200.0		73.2	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		78.0	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	200		200.0		99.3	15.7	154	0	0	
Surr: Nitrobenzene-d5	90		100.0		90.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	91		100.0		90.8	21.3	123	0	0	
Surr: 4-Terphenyl-d14	110		100.0		112	14.3	135	0	0	

Sample ID	mb-21021		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 21021		RunNo: 28509					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862148		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-21021	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	21021	RunNo:	28509					
Prep Date:	8/27/2015	Analysis Date:	8/27/2015	SeqNo:	862148	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	mb-21021		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 21021		RunNo: 28509					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862148		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	82		200.0		40.8	14.9	111			
Surr: Phenol-d5	86		200.0		43.0	11.3	108			
Surr: 2,4,6-Tribromophenol	120		200.0		60.4	15.7	154			
Surr: Nitrobenzene-d5	45		100.0		44.7	47.8	106			S
Surr: 2-Fluorobiphenyl	46		100.0		45.6	21.3	123			
Surr: 4-Terphenyl-d14	87		100.0		87.3	14.3	135			

Sample ID	lcs-21021		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 21021		RunNo: 28509					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862150		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	70.0	47.8	99.7			
4-Chloro-3-methylphenol	140	10	200.0	0	71.8	58.1	103			
2-Chlorophenol	150	10	200.0	0	75.2	49.5	96.8			
1,4-Dichlorobenzene	74	10	100.0	0	73.8	40.4	89.4			
2,4-Dinitrotoluene	53	10	100.0	0	52.9	38.6	91.3			
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	53.9	95.6			
4-Nitrophenol	130	10	200.0	0	67.2	26.4	108			
Pentachlorophenol	140	20	200.0	0	67.8	36.5	86.6			
Phenol	150	10	200.0	0	76.2	29.3	108			
Pyrene	70	10	100.0	0	69.6	45.7	100			
1,2,4-Trichlorobenzene	76	10	100.0	0	75.8	39.3	94.5			
Surr: 2-Fluorophenol	140		200.0		71.3	14.9	111			
Surr: Phenol-d5	150		200.0		72.7	11.3	108			
Surr: 2,4,6-Tribromophenol	160		200.0		80.7	15.7	154			
Surr: Nitrobenzene-d5	72		100.0		72.4	47.8	106			
Surr: 2-Fluorobiphenyl	73		100.0		73.1	21.3	123			
Surr: 4-Terphenyl-d14	64		100.0		63.5	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Page 101 of 102

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B80

21-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR (MKTF)

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	A28474	RunNo:	28474					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861434	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		96.1	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	A28474	RunNo:	28474					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861435	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.4	80.6	122			
Surr: BFB	10		10.00		101	70	130			

Sample ID	1508B80-005B MS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-2	Batch ID:	A28474	RunNo:	28474					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861476	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.3	0.050	0.5000	1.959	64.7	53.8	128			
Surr: BFB	9.5		10.00		94.6	70	130			

Sample ID	1508B80-005B MSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-2	Batch ID:	A28474	RunNo:	28474					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861477	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.4	0.050	0.5000	1.959	80.2	53.8	128	3.34	20	
Surr: BFB	11		10.00		107	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508B80

RcptNo: 1

Received by/date:

CS

08/24/15

Logged By: Ashley Gallegos

8/24/2015 2:43:00 PM

Ag

Completed By: Ashley Gallegos

8/24/2015 5:16:30 PM

Ag

Reviewed By:

mg

08/25/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

33

(<2 or >12 unless noted)

Adjusted?

No

Checked by:

JA

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐

eMail

☐

Phone

☐

Fax

☐

In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 25, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3RD QTR WTR (MKTF)

OrderNo.: 1508B81

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 7:00:00 AM

Lab ID: 1508B81-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Toluene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Ethylbenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Naphthalene	ND	2.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
2-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Acetone	ND	10		µg/L	1	8/27/2015 10:32:34 PM	B28519
Bromobenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Bromodichloromethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Bromoform	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Bromomethane	ND	3.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
2-Butanone	ND	10		µg/L	1	8/27/2015 10:32:34 PM	B28519
Carbon disulfide	ND	10		µg/L	1	8/27/2015 10:32:34 PM	B28519
Carbon Tetrachloride	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Chlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Chloroethane	ND	2.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Chloroform	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Chloromethane	ND	3.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
2-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
4-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
cis-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Dibromochloromethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Dibromomethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,1-Dichloroethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,1-Dichloroethene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,3-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
2,2-Dichloropropane	ND	2.0		µg/L	1	8/27/2015 10:32:34 PM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3RD QTR WTR (MKTf)

Collection Date: 8/23/2015 7:00:00 AM

Lab ID: 1508B81-001

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: RAA	
1,1-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Hexachlorobutadiene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
2-Hexanone	ND	10		µg/L	1	8/27/2015 10:32:34 PM	B28519
Isopropylbenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
4-Isopropyltoluene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2015 10:32:34 PM	B28519
Methylene Chloride	ND	3.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
n-Butylbenzene	ND	3.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
n-Propylbenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
sec-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Styrene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
tert-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
trans-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Trichlorofluoromethane	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Vinyl chloride	ND	1.0		µg/L	1	8/27/2015 10:32:34 PM	B28519
Xylenes, Total	ND	1.5		µg/L	1	8/27/2015 10:32:34 PM	B28519
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%REC	1	8/27/2015 10:32:34 PM	B28519
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	8/27/2015 10:32:34 PM	B28519
Surr: Dibromofluoromethane	93.7	70-130		%REC	1	8/27/2015 10:32:34 PM	B28519
Surr: Toluene-d8	98.7	70-130		%REC	1	8/27/2015 10:32:34 PM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD QTR WTR (MKTF)

Collection Date:

Lab ID: 1508B81-002

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/27/2015 1:20:26 AM	B28492
Surr: BFB	103	70-130		%REC	1	8/27/2015 1:20:26 AM	B28492
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Toluene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Ethylbenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Naphthalene	ND	2.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
2-Methylnaphthalene	ND	4.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Acetone	ND	10		µg/L	1	8/27/2015 11:01:18 PM	B28519
Bromobenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Bromodichloromethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Bromoform	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Bromomethane	ND	3.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
2-Butanone	ND	10		µg/L	1	8/27/2015 11:01:18 PM	B28519
Carbon disulfide	ND	10		µg/L	1	8/27/2015 11:01:18 PM	B28519
Carbon Tetrachloride	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Chlorobenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Chloroethane	ND	2.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Chloroform	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Chloromethane	ND	3.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
2-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
4-Chlorotoluene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
cis-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Dibromochloromethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Dibromomethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,1-Dichloroethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,1-Dichloroethene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD QTR WTR (MKTF)

Collection Date:

Lab ID: 1508B81-002

Matrix: TRIP BLANK

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,2-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,3-Dichloropropane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
2,2-Dichloropropane	ND	2.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,1-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Hexachlorobutadiene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
2-Hexanone	ND	10		µg/L	1	8/27/2015 11:01:18 PM	B28519
Isopropylbenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
4-Isopropyltoluene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2015 11:01:18 PM	B28519
Methylene Chloride	ND	3.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
n-Butylbenzene	ND	3.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
n-Propylbenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
sec-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Styrene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
tert-Butylbenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
trans-1,2-DCE	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Trichlorofluoromethane	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Vinyl chloride	ND	1.0		µg/L	1	8/27/2015 11:01:18 PM	B28519
Xylenes, Total	ND	1.5		µg/L	1	8/27/2015 11:01:18 PM	B28519
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/27/2015 11:01:18 PM	B28519
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	8/27/2015 11:01:18 PM	B28519
Surr: Dibromofluoromethane	101	70-130		%REC	1	8/27/2015 11:01:18 PM	B28519
Surr: Toluene-d8	94.1	70-130		%REC	1	8/27/2015 11:01:18 PM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 7:00:00 AM

Lab ID: 1508B81-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Acenaphthylene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Aniline	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Anthracene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Azobenzene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Benzoic acid	ND	20		µg/L	1	8/27/2015 12:27:15 AM	20976
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Carbazole	27	10		µg/L	1	8/27/2015 12:27:15 AM	20976
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Chrysene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Dibenzofuran	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 12:27:15 AM	20976
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 12:27:15 AM	20976
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 12:27:15 AM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 7:00:00 AM

Lab ID: 1508B81-003

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Fluoranthene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Fluorene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Hexachloroethane	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Isophorone	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
1-Methylnaphthalene	120	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2-Methylnaphthalene	29	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2-Methylphenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Naphthalene	76	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Nitrobenzene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 12:27:15 AM	20976
Phenanthrene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Phenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Pyrene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Pyridine	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 12:27:15 AM	20976
Surr: 2-Fluorophenol	81.5	14.9-111		%REC	1	8/27/2015 12:27:15 AM	20976
Surr: Phenol-d5	71.8	11.3-108		%REC	1	8/27/2015 12:27:15 AM	20976
Surr: 2,4,6-Tribromophenol	134	15.7-154		%REC	1	8/27/2015 12:27:15 AM	20976
Surr: Nitrobenzene-d5	108	47.8-106	S	%REC	1	8/27/2015 12:27:15 AM	20976
Surr: 2-Fluorobiphenyl	110	21.3-123		%REC	1	8/27/2015 12:27:15 AM	20976
Surr: 4-Terphenyl-d14	108	14.3-135		%REC	1	8/27/2015 12:27:15 AM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:36:00 AM

Lab ID: 1508B81-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.010	0.0050	*	mg/L	5	9/9/2015 9:18:42 PM	F28733
Lead	ND	0.0025		mg/L	5	9/9/2015 9:18:42 PM	F28733
Selenium	0.0097	0.0050		mg/L	5	9/9/2015 9:18:42 PM	F28733
Uranium	ND	0.0025		mg/L	5	9/9/2015 9:18:42 PM	F28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.66	0.50		mg/L	5	8/26/2015 2:12:24 PM	R28495
Chloride	1700	50		mg/L	100	9/3/2015 2:29:25 AM	R28639
Bromide	2.3	0.50		mg/L	5	8/26/2015 2:12:24 PM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 2:12:24 PM	R28495
Sulfate	ND	2.5		mg/L	5	8/26/2015 2:12:24 PM	R28495
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/27/2015 1:30:55 PM	R28522
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	2.7	0.010	*	mg/L	5	9/4/2015 7:24:00 PM	B28671
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:27:38 PM	E28647
Calcium	150	5.0		mg/L	5	9/4/2015 7:24:00 PM	B28671
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:27:38 PM	E28647
Copper	ND	0.0060		mg/L	1	9/4/2015 7:22:08 PM	B28671
Iron	11	1.0	*	mg/L	50	9/4/2015 7:25:48 PM	B28671
Magnesium	41	1.0		mg/L	1	9/3/2015 7:27:38 PM	E28647
Manganese	4.1	0.010	*	mg/L	5	9/4/2015 7:24:00 PM	B28671
Potassium	2.5	1.0		mg/L	1	9/3/2015 7:27:38 PM	E28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:27:38 PM	E28647
Sodium	1100	50		mg/L	50	9/4/2015 7:25:48 PM	B28671
Zinc	ND	0.010		mg/L	1	9/4/2015 7:22:08 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	3.9	0.020	*	mg/L	10	9/2/2015 6:03:26 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:32:16 PM	21084
Chromium	ND	0.0060		mg/L	1	9/2/2015 4:32:16 PM	21084
Copper	ND	0.0060		mg/L	1	9/2/2015 4:32:16 PM	21084
Iron	16	0.40	*	mg/L	20	9/2/2015 6:19:10 PM	21084
Manganese	5.5	0.020	*	mg/L	10	9/2/2015 6:03:26 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 4:32:16 PM	21084
Zinc	0.010	0.010		mg/L	1	9/2/2015 4:32:16 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.014	0.010	*	mg/L	10	9/10/2015 6:50:59 PM	21084
Lead	0.0012	0.00050		mg/L	1	9/3/2015 8:02:35 PM	21084
Selenium	ND	0.020		mg/L	20	9/11/2015 1:55:32 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:36:00 AM

Lab ID: 1508B81-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.00050		mg/L	1	9/3/2015 8:02:35 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/8/2015 2:48:04 PM	21149
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	83	5.0	D	mg/L	100	8/27/2015 2:18:05 AM	B28492
Surr: BFB	100	70-130	D	%REC	100	8/27/2015 2:18:05 AM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	3.7	1.0		mg/L	1	8/26/2015 11:01:25 PM	20965
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 11:01:25 PM	20965
Surr: DNOP	112	72-136		%REC	1	8/26/2015 11:01:25 PM	20965
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Acenaphthylene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Aniline	25	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Anthracene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Azobenzene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Benzoic acid	ND	20		µg/L	1	8/27/2015 3:52:11 PM	20976
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Carbazole	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Chrysene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:36:00 AM

Lab ID: 1508B81-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Dibenzofuran	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 3:52:11 PM	20976
2,4-Dimethylphenol	130	10		µg/L	1	8/27/2015 3:52:11 PM	20976
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 3:52:11 PM	20976
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 3:52:11 PM	20976
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Fluoranthene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Fluorene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Hexachloroethane	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Isophorone	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
1-Methylnaphthalene	44	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2-Methylnaphthalene	55	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2-Methylphenol	100	10		µg/L	1	8/27/2015 3:52:11 PM	20976
3+4-Methylphenol	15	10		µg/L	1	8/27/2015 3:52:11 PM	20976
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Naphthalene	160	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Nitrobenzene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 3:52:11 PM	20976
Phenanthrene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:36:00 AM

Lab ID: 1508B81-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	42	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Pyrene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Pyridine	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 3:52:11 PM	20976
Surr: 2-Fluorophenol	29.3	14.9-111		%REC	1	8/27/2015 3:52:11 PM	20976
Surr: Phenol-d5	53.3	11.3-108		%REC	1	8/27/2015 3:52:11 PM	20976
Surr: 2,4,6-Tribromophenol	52.5	15.7-154		%REC	1	8/27/2015 3:52:11 PM	20976
Surr: Nitrobenzene-d5	87.7	47.8-106		%REC	1	8/27/2015 3:52:11 PM	20976
Surr: 2-Fluorobiphenyl	89.1	21.3-123		%REC	1	8/27/2015 3:52:11 PM	20976
Surr: 4-Terphenyl-d14	83.4	14.3-135		%REC	1	8/27/2015 3:52:11 PM	20976
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	24000	1000	D	µg/L	1E	8/28/2015 1:53:50 AM	B28519
Toluene	640	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Ethylbenzene	1400	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Methyl tert-butyl ether (MTBE)	2100	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2,4-Trimethylbenzene	890	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,3,5-Trimethylbenzene	320	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2-Dichloroethane (EDC)	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2-Dibromoethane (EDB)	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Naphthalene	200	200	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1-Methylnaphthalene	ND	400	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
2-Methylnaphthalene	ND	400	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Acetone	ND	1000	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Bromobenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Bromodichloromethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Bromoform	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Bromomethane	ND	300	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
2-Butanone	ND	1000	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Carbon disulfide	ND	1000	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Carbon Tetrachloride	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Chlorobenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Chloroethane	ND	200	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Chloroform	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Chloromethane	ND	300	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
2-Chlorotoluene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
4-Chlorotoluene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
cis-1,2-DCE	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:36:00 AM

Lab ID: 1508B81-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
cis-1,3-Dichloropropene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2-Dibromo-3-chloropropane	ND	200	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Dibromochloromethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Dibromomethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2-Dichlorobenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,3-Dichlorobenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,4-Dichlorobenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Dichlorodifluoromethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,1-Dichloroethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,1-Dichloroethene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2-Dichloropropane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,3-Dichloropropane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
2,2-Dichloropropane	ND	200	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,1-Dichloropropene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Hexachlorobutadiene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
2-Hexanone	ND	1000	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Isopropylbenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
4-Isopropyltoluene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
4-Methyl-2-pentanone	ND	1000	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Methylene Chloride	ND	300	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
n-Butylbenzene	ND	300	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
n-Propylbenzene	110	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
sec-Butylbenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Styrene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
tert-Butylbenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,1,1,2-Tetrachloroethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,1,2,2-Tetrachloroethane	ND	200	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Tetrachloroethene (PCE)	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
trans-1,2-DCE	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
trans-1,3-Dichloropropene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2,3-Trichlorobenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2,4-Trichlorobenzene	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,1,1-Trichloroethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,1,2-Trichloroethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Trichloroethene (TCE)	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Trichlorofluoromethane	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
1,2,3-Trichloropropane	ND	200	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Vinyl chloride	ND	100	D	µg/L	100	8/28/2015 2:22:36 AM	B28519
Xylenes, Total	5600	150	D	µg/L	100	8/28/2015 2:22:36 AM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:36:00 AM

Lab ID: 1508B81-004

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Surr: 1,2-Dichloroethane-d4	98.4	70-130	D	%REC	100	8/28/2015 2:22:36 AM	B28519
Surr: 4-Bromofluorobenzene	100	70-130	D	%REC	100	8/28/2015 2:22:36 AM	B28519
Surr: Dibromofluoromethane	96.2	70-130	D	%REC	100	8/28/2015 2:22:36 AM	B28519
Surr: Toluene-d8	93.5	70-130	D	%REC	100	8/28/2015 2:22:36 AM	B28519

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:10:00 AM

Lab ID: 1508B81-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/9/2015 9:24:50 PM	F28733
Lead	ND	0.0025		mg/L	5	9/9/2015 9:24:50 PM	F28733
Selenium	ND	0.010		mg/L	10	9/11/2015 6:11:08 PM	B28806
Uranium	ND	0.0025		mg/L	5	9/9/2015 9:24:50 PM	F28733
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/26/2015 2:37:13 PM	R28495
Chloride	9100	500		mg/L	1E	9/3/2015 2:41:50 AM	R28639
Bromide	ND	0.50		mg/L	5	8/26/2015 2:37:13 PM	R28495
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2015 2:37:13 PM	R28495
Sulfate	ND	2.5		mg/L	5	8/26/2015 2:37:13 PM	R28495
Nitrate+Nitrite as N	ND	4.0		mg/L	20	9/3/2015 2:04:36 AM	R28639
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	44	0.20	*	mg/L	100	9/4/2015 7:46:10 PM	B28671
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:29:26 PM	E28647
Calcium	680	10		mg/L	10	9/4/2015 7:38:54 PM	B28671
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:29:26 PM	E28647
Copper	ND	0.0060		mg/L	1	9/4/2015 7:27:42 PM	B28671
Iron	45	2.0	*	mg/L	100	9/4/2015 7:46:10 PM	B28671
Magnesium	220	5.0		mg/L	5	9/4/2015 7:33:11 PM	B28671
Manganese	5.8	0.020	*	mg/L	10	9/4/2015 7:38:54 PM	B28671
Potassium	12	1.0		mg/L	1	9/3/2015 7:29:26 PM	E28647
Silver	ND	0.0050		mg/L	1	9/3/2015 7:29:26 PM	E28647
Sodium	4600	100		mg/L	100	9/4/2015 7:46:10 PM	B28671
Zinc	0.023	0.010		mg/L	1	9/4/2015 7:27:42 PM	B28671
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	49	0.20	*	mg/L	100	9/2/2015 6:22:49 PM	21084
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:34:07 PM	21084
Chromium	ND	0.0060		mg/L	1	9/2/2015 4:34:07 PM	21084
Copper	0.019	0.0060		mg/L	1	9/2/2015 4:34:07 PM	21084
Iron	57	2.0	*	mg/L	100	9/2/2015 6:22:49 PM	21084
Manganese	6.8	0.020	*	mg/L	10	9/2/2015 6:21:07 PM	21084
Silver	ND	0.0050		mg/L	1	9/2/2015 4:34:07 PM	21084
Zinc	0.062	0.010		mg/L	1	9/2/2015 4:34:07 PM	21084
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/10/2015 7:00:02 PM	21084
Lead	0.034	0.0025	*	mg/L	5	9/10/2015 7:00:02 PM	21084
Selenium	ND	0.010		mg/L	10	9/11/2015 1:58:33 PM	21084

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:10:00 AM

Lab ID: 1508B81-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0035	0.0025		mg/L	5	9/10/2015 7:00:02 PM	21084
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	0.00027	0.00020		mg/L	1	9/8/2015 2:50:08 PM	21149
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	0.93	0.050		mg/L	1	8/27/2015 3:15:28 AM	B28492
Surr: BFB	92.4	70-130		%REC	1	8/27/2015 3:15:28 AM	B28492
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	13	1.0		mg/L	1	8/26/2015 11:28:49 PM	20965
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/26/2015 11:28:49 PM	20965
Surr: DNOP	118	72-136		%REC	1	8/26/2015 11:28:49 PM	20965
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Acenaphthylene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Aniline	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Anthracene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Azobenzene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Benzoic acid	ND	20		µg/L	1	8/27/2015 4:22:23 PM	20976
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Carbazole	25	10		µg/L	1	8/27/2015 4:22:23 PM	20976
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Chrysene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:10:00 AM

Lab ID: 1508B81-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Dibenzofuran	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 4:22:23 PM	20976
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 4:22:23 PM	20976
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 4:22:23 PM	20976
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Fluoranthene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Fluorene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Hexachloroethane	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Isophorone	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
1-Methylnaphthalene	84	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2-Methylnaphthalene	21	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2-Methylphenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Naphthalene	51	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Nitrobenzene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 4:22:23 PM	20976
Phenanthrene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:10:00 AM

Lab ID: 1508B81-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Pyrene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Pyridine	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 4:22:23 PM	20976
Surr: 2-Fluorophenol	55.7	14.9-111		%REC	1	8/27/2015 4:22:23 PM	20976
Surr: Phenol-d5	46.7	11.3-108		%REC	1	8/27/2015 4:22:23 PM	20976
Surr: 2,4,6-Tribromophenol	102	15.7-154		%REC	1	8/27/2015 4:22:23 PM	20976
Surr: Nitrobenzene-d5	75.1	47.8-106		%REC	1	8/27/2015 4:22:23 PM	20976
Surr: 2-Fluorobiphenyl	87.3	21.3-123		%REC	1	8/27/2015 4:22:23 PM	20976
Surr: 4-Terphenyl-d14	84.0	14.3-135		%REC	1	8/27/2015 4:22:23 PM	20976
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	23	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Toluene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Ethylbenzene	60	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2,4-Trimethylbenzene	98	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Naphthalene	100	2.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1-Methylnaphthalene	110	40		µg/L	10	8/28/2015 2:15:13 PM	C28552
2-Methylnaphthalene	40	4.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Acetone	ND	10		µg/L	1	8/28/2015 2:43:58 PM	C28552
Bromobenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Bromoform	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Bromomethane	ND	3.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
2-Butanone	ND	10		µg/L	1	8/28/2015 2:43:58 PM	C28552
Carbon disulfide	ND	10		µg/L	1	8/28/2015 2:43:58 PM	C28552
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Chlorobenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Chloroethane	ND	2.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Chloroform	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Chloromethane	ND	3.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:10:00 AM

Lab ID: 1508B81-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Dibromomethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
2-Hexanone	ND	10		µg/L	1	8/28/2015 2:43:58 PM	C28552
Isopropylbenzene	20	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
4-Isopropyltoluene	7.3	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2015 2:43:58 PM	C28552
Methylene Chloride	ND	3.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
n-Butylbenzene	3.8	3.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
n-Propylbenzene	23	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
sec-Butylbenzene	9.7	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Styrene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Vinyl chloride	ND	1.0		µg/L	1	8/28/2015 2:43:58 PM	C28552
Xylenes, Total	1.6	1.5		µg/L	1	8/28/2015 2:43:58 PM	C28552

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508B81

Date Reported: 9/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 3RD QTR WTR (MKTF)

Collection Date: 8/23/2015 9:10:00 AM

Lab ID: 1508B81-005

Matrix: AQUEOUS

Received Date: 8/24/2015 2:43:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: RAA	
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%REC	1	8/28/2015 2:43:58 PM	C28552
Surr: 4-Bromofluorobenzene	91.2	70-130		%REC	1	8/28/2015 2:43:58 PM	C28552
Surr: Dibromofluoromethane	94.1	70-130		%REC	1	8/28/2015 2:43:58 PM	C28552
Surr: Toluene-d8	98.6	70-130		%REC	1	8/28/2015 2:43:58 PM	C28552

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: E28647			RunNo: 28647					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867618		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: E28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867619		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.1	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.099	0.0050	0.1000	0	99.5	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: E28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867620		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.0021	0.0020	0.002000	0	104	50	150			
Chromium	0.0060	0.0060	0.006000	0	100	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Potassium	ND	1.0	0.5000	0	98.1	50	150			
Silver	ND	0.0050	0.005000	0	98.8	50	150			

Sample ID	1508B81-005EMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	MKTF-39		Batch ID: E28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867732		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.55	0.0020	0.5000	0	111	70	130			
Chromium	0.51	0.0060	0.5000	0	101	70	130			
Potassium	69	1.0	50.00	12.42	113	70	130			
Silver	0.12	0.0050	0.1000	0	116	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	1508B81-005EMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	MKTF-39		Batch ID:	E28647		RunNo:	28647			
Prep Date:			Analysis Date:	9/3/2015		SeqNo:	867733		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.55	0.0020	0.5000	0	111	70	130	0.0848	20	
Chromium	0.50	0.0060	0.5000	0	101	70	130	0.315	20	
Potassium	69	1.0	50.00	12.42	114	70	130	0.488	20	
Silver	0.12	0.0050	0.1000	0	116	70	130	0.147	20	

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	B28671		RunNo:	28671			
Prep Date:			Analysis Date:	9/4/2015		SeqNo:	868402		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	B28671		RunNo:	28671			
Prep Date:			Analysis Date:	9/4/2015		SeqNo:	868403		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.49	0.020	0.5000	0	97.1	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Sodium	51	1.0	50.00	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Sample ID	LCSLL		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	B28671		RunNo:	28671			
Prep Date:			Analysis Date:	9/4/2015		SeqNo:	868404		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	96.0	50	150			
Calcium	ND	1.0	0.5000	0	104	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868404		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060	0.006000	0	96.0	50	150			
Iron	0.021	0.020	0.02000	0	105	50	150			
Magnesium	ND	1.0	0.5000	0	106	50	150			
Manganese	ND	0.0020	0.002000	0	96.5	50	150			
Sodium	ND	1.0	0.5000	0	104	50	150			
Zinc	ND	0.010	0.005000	0	101	50	150			

Sample ID	1508B81-005EMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	MKTF-39		Batch ID: B28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868971		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.57	0.0060	0.5000	0	114	70	130			
Zinc	0.48	0.010	0.5000	0.02262	91.9	70	130			

Sample ID	1508B81-005EMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	MKTF-39		Batch ID: B28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868972		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.58	0.0060	0.5000	0	116	70	130	2.07	20	
Zinc	0.49	0.010	0.5000	0.02262	93.7	70	130	1.87	20	

Sample ID	1508B81-005EMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	MKTF-39		Batch ID: B28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868974		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	480	5.0	250.0	222.5	102	70	130			

Sample ID	1508B81-005EMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	MKTF-39		Batch ID: B28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868975		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	470	5.0	250.0	222.5	99.5	70	130	1.24	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	MB-21084		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21084		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865832		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21084		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21084		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865833		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.49	0.020	0.5000	0	98.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.093	0.0050	0.1000	0	93.0	85	115			
Zinc	0.48	0.010	0.5000	0	96.6	85	115			

Sample ID	LLLCS-21084		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21084		RunNo: 28618					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 865834		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	120	50	150			
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Chromium	ND	0.0060	0.006000	0	80.2	50	150			
Copper	0.0063	0.0060	0.006000	0	105	50	150			
Iron	ND	0.020	0.02000	0	94.4	50	150			
Manganese	0.0020	0.0020	0.002000	0	100	50	150			
Silver	0.0054	0.0050	0.005000	0	107	50	150			
Zinc	ND	0.010	0.005000	0	118	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: F28733			RunNo: 28733						
Prep Date:	Analysis Date: 9/9/2015			SeqNo: 871152		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.012	0.00050	0.01250	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: F28733			RunNo: 28733						
Prep Date:	Analysis Date: 9/9/2015			SeqNo: 871155		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	98.5	50	150			
Lead	0.00053	0.00050	0.0005000	0	106	50	150			
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00050	0.00050	0.0005000	0	101	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: F28733			RunNo: 28733						
Prep Date:	Analysis Date: 9/9/2015			SeqNo: 871158		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B28806			RunNo: 28806						
Prep Date:	Analysis Date: 9/11/2015			SeqNo: 873577		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B28806			RunNo: 28806						
Prep Date:	Analysis Date: 9/11/2015			SeqNo: 873579		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	110	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	B28806	RunNo:	28806					
Prep Date:		Analysis Date:	9/11/2015	SeqNo:	873581	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	MB-21084		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 21084		RunNo: 28654					
Prep Date:	9/1/2015		Analysis Date: 9/3/2015		SeqNo: 867438		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21084		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 21084		RunNo: 28654					
Prep Date:	9/1/2015		Analysis Date: 9/3/2015		SeqNo: 867440		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.8	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.023	0.0010	0.02500	0	92.0	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	MSLLCS-21084		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 21084		RunNo: 28654					
Prep Date:	9/1/2015		Analysis Date: 9/3/2015		SeqNo: 867442		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	107	50	150			
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	ND	0.0010	0.001000	0	82.7	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	MB-21149		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 21149		RunNo: 28700					
Prep Date:	9/4/2015		Analysis Date: 9/8/2015		SeqNo: 869680		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-21149		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 21149		RunNo: 28700					
Prep Date:	9/4/2015		Analysis Date: 9/8/2015		SeqNo: 869681		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.4	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28495	RunNo:	28495					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861647	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28495	RunNo:	28495					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861648	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Bromide	2.4	0.10	2.500	0	95.8	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.0	90	110			
Sulfate	9.5	0.50	10.00	0	94.9	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28522	RunNo:	28522					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	862614	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28522	RunNo:	28522					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	862615	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.7	0.20	3.500	0	105	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28522	RunNo:	28522					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	862706	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28522		RunNo: 28522					
Prep Date:			Analysis Date: 8/28/2015		SeqNo: 862708		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28639			RunNo: 28639					
Prep Date:		Analysis Date: 9/2/2015			SeqNo: 866937		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28639		RunNo: 28639					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866938		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.6	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	MB-20965	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 20965			RunNo: 28471					
Prep Date:	8/25/2015	Analysis Date: 8/26/2015			SeqNo: 861711		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		118	72	136			

Sample ID	LCS-20965		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20965		RunNo: 28471					
Prep Date:	8/25/2015		Analysis Date: 8/26/2015		SeqNo: 861712		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	108	52.4	154			
Surr: DNOP	0.53		0.5000		106	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	100ng-lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: B28519		RunNo: 28519					
Prep Date:			Analysis Date: 8/27/2015		SeqNo: 862547		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.5	70	130			
Toluene	19	1.0	20.00	0	92.8	70	130			
Chlorobenzene	19	1.0	20.00	0	92.8	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.4	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: B28519			RunNo: 28519					
Prep Date:		Analysis Date: 8/27/2015			SeqNo: 862580		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: B28519			RunNo: 28519					
Prep Date:		Analysis Date: 8/27/2015			SeqNo: 862580	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: B28519			RunNo: 28519					
Prep Date:		Analysis Date: 8/27/2015			SeqNo: 862580		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: C28552			RunNo: 28552					
Prep Date:		Analysis Date: 8/28/2015			SeqNo: 863653		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.1	70	130			
Toluene	19	1.0	20.00	0	94.2	70	130			
Chlorobenzene	19	1.0	20.00	0	95.4	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.1	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: C28552			RunNo: 28552					
Prep Date:		Analysis Date: 8/28/2015			SeqNo: 863661		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: C28552			RunNo: 28552					
Prep Date:		Analysis Date: 8/28/2015			SeqNo: 863661	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: C28552			RunNo: 28552					
Prep Date:		Analysis Date: 8/28/2015			SeqNo: 863661	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.1	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	mb-20976		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20976		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861181		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	mb-20976	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20976	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861181	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		71.1	14.9	111			
Surr: Phenol-d5	140		200.0		70.6	11.3	108			
Surr: 2,4,6-Tribromophenol	180		200.0		91.9	15.7	154			
Surr: Nitrobenzene-d5	76		100.0		75.6	47.8	106			
Surr: 2-Fluorobiphenyl	82		100.0		81.7	21.3	123			
Surr: 4-Terphenyl-d14	150		100.0		146	14.3	135			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	Ics-20976		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20976		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861185		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	88	10	100.0	0	87.9	47.8	99.7			
4-Chloro-3-methylphenol	190	10	200.0	0	94.3	58.1	103			
2-Chlorophenol	180	10	200.0	0	89.6	49.5	96.8			
1,4-Dichlorobenzene	89	10	100.0	0	88.8	40.4	89.4			
2,4-Dinitrotoluene	60	10	100.0	0	60.1	38.6	91.3			
N-Nitrosodi-n-propylamine	94	10	100.0	0	93.8	53.9	95.6			
4-Nitrophenol	160	10	200.0	0	78.0	26.4	108			
Pentachlorophenol	160	20	200.0	0	78.4	36.5	86.6			
Phenol	180	10	200.0	0	88.9	29.3	108			
Pyrene	130	10	100.0	0	133	45.7	100			S
1,2,4-Trichlorobenzene	100	10	100.0	0	99.7	39.3	94.5			S
Surr: 2-Fluorophenol	170		200.0		85.6	14.9	111			
Surr: Phenol-d5	180		200.0		89.2	11.3	108			
Surr: 2,4,6-Tribromophenol	220		200.0		109	15.7	154			
Surr: Nitrobenzene-d5	93		100.0		92.8	47.8	106			
Surr: 2-Fluorobiphenyl	90		100.0		89.7	21.3	123			
Surr: 4-Terphenyl-d14	150		100.0		148	14.3	135			S

Sample ID	Icsd-20976		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20976		RunNo: 28486					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 861188		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	79.9	47.8	99.7	9.51	28.2	
4-Chloro-3-methylphenol	160	10	200.0	0	81.1	58.1	103	15.1	24.4	
2-Chlorophenol	150	10	200.0	0	76.7	49.5	96.8	15.4	28.1	
1,4-Dichlorobenzene	84	10	100.0	0	83.6	40.4	89.4	6.01	31.2	
2,4-Dinitrotoluene	61	10	100.0	0	60.7	38.6	91.3	1.03	44.4	
N-Nitrosodi-n-propylamine	75	10	100.0	0	75.5	53.9	95.6	21.6	24.2	
4-Nitrophenol	170	10	200.0	0	84.5	26.4	108	8.02	36.6	
Pentachlorophenol	160	20	200.0	0	81.6	36.5	86.6	3.90	29.5	
Phenol	160	10	200.0	0	80.0	29.3	108	10.5	30	
Pyrene	130	10	100.0	0	126	45.7	100	5.83	31	S
1,2,4-Trichlorobenzene	97	10	100.0	0	97.2	39.3	94.5	2.62	24	S
Surr: 2-Fluorophenol	150		200.0		73.2	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		78.0	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	200		200.0		99.3	15.7	154	0	0	
Surr: Nitrobenzene-d5	90		100.0		90.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	91		100.0		90.8	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	lcsd-20976	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	20976	RunNo:	28486					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	861188	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	110		100.0		112	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B81

25-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD QTR WTR (MKTF)

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	B28492	RunNo:	28492					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861612	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	101	80.6	122			
Surr: BFB	10		10.00		103	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	B28492	RunNo:	28492					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	861613	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		99.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508B81

RcptNo: 1

Received by/date:

CS

08/24/15

Logged By:

Ashley Gallegos

8/24/2015 2:43:00 PM

Ag

Completed By:

Ashley Gallegos

8/24/2015 5:24:00 PM

Ag

Reviewed By:

mg

08/25/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☒

9. Was preservative added to bottles?

Yes ☒

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(2 or >12 unless noted)

Adjusted?

Checked by:

For metals analysis: Added 1mL HNO₃ to -005F for acceptable pH Held in log in 24 hours after preserved

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Yes			

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly indicated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 25, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3RD Qtr-Outfalls

OrderNo.: 1508291

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/7/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 2

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:35:00 AM

Lab ID: 1508291-001

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	37	2.0		mg/L	1	8/12/2015 3:15:00 PM	20667
EPA METHOD 300.0: ANIONS							Analyst: LGT
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/7/2015 8:16:23 PM	R28061
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/7/2015 8:16:23 PM	R28061
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	300	100	D	mg/L	1	8/12/2015 3:19:00 PM	20707
EPA METHOD 365.1: TOTAL PHOSPHOROUS							Analyst: JRR
Phosphorus, Total (As P)	0.13	0.010		mg/L	1	8/19/2015 9:46:33 AM	20864
SM 4500 NORG C: TKN							Analyst: SRM
Nitrogen, Kjeldahl, Total	4.8	2.0	D	mg/L	1	8/19/2015 9:30:00 AM	20835
SM 2540D: TSS							Analyst: KS
Suspended Solids	27	4.0		mg/L	1	8/11/2015 8:22:00 AM	20692
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	16	1.0		mg/L	1	8/10/2015 7:08:02 PM	20682
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/10/2015 7:08:02 PM	20682
Surr: DNOP	121	72-136		%REC	1	8/10/2015 7:08:02 PM	20682
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	0.062	0.050		mg/L	1	8/10/2015 6:22:30 PM	R28068
Surr: BFB	96.2	57.8-137		%REC	1	8/10/2015 6:22:30 PM	R28068
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Acenaphthylene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Aniline	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Anthracene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Azobenzene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Benz(a)anthracene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Benzo(a)pyrene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Benzo(b)fluoranthene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Benzo(k)fluoranthene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Benzoic acid	ND	20		µg/L	1	8/11/2015 5:57:17 PM	20676
Benzyl alcohol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 2

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:35:00 AM

Lab ID: 1508291-001

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Butyl benzyl phthalate	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Carbazole	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
4-Chloroaniline	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2-Chloronaphthalene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2-Chlorophenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Chrysene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Di-n-butyl phthalate	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Di-n-octyl phthalate	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Dibenzofuran	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
1,2-Dichlorobenzene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
1,3-Dichlorobenzene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
1,4-Dichlorobenzene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Diethyl phthalate	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Dimethyl phthalate	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2,4-Dichlorophenol	ND	20		µg/L	1	8/11/2015 5:57:17 PM	20676
2,4-Dimethylphenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/11/2015 5:57:17 PM	20676
2,4-Dinitrophenol	ND	20		µg/L	1	8/11/2015 5:57:17 PM	20676
2,4-Dinitrotoluene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2,6-Dinitrotoluene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Fluoranthene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Fluorene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Hexachlorobenzene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Hexachlorobutadiene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Hexachloroethane	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Isophorone	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
1-Methylnaphthalene	16	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2-Methylnaphthalene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2-Methylphenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
3+4-Methylphenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 2

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:35:00 AM

Lab ID: 1508291-001

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Naphthalene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2-Nitroaniline	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
3-Nitroaniline	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
4-Nitroaniline	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Nitrobenzene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2-Nitrophenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
4-Nitrophenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Pentachlorophenol	ND	20		µg/L	1	8/11/2015 5:57:17 PM	20676
Phenanthrene	15	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Phenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Pyrene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Pyridine	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/11/2015 5:57:17 PM	20676
Surr: 2-Fluorophenol	53.4	14.9-111		%REC	1	8/11/2015 5:57:17 PM	20676
Surr: Phenol-d5	44.2	11.3-108		%REC	1	8/11/2015 5:57:17 PM	20676
Surr: 2,4,6-Tribromophenol	64.4	15.7-154		%REC	1	8/11/2015 5:57:17 PM	20676
Surr: Nitrobenzene-d5	68.6	47.8-106		%REC	1	8/11/2015 5:57:17 PM	20676
Surr: 2-Fluorobiphenyl	83.0	21.3-123		%REC	1	8/11/2015 5:57:17 PM	20676
Surr: 4-Terphenyl-d14	68.4	14.3-135		%REC	1	8/11/2015 5:57:17 PM	20676
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	3.2	2.5	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Toluene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Ethylbenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Methyl tert-butyl ether (MTBE)	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2,4-Trimethylbenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,3,5-Trimethylbenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2-Dichloroethane (EDC)	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2-Dibromoethane (EDB)	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Naphthalene	ND	10	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1-Methylnaphthalene	24	20	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
2-Methylnaphthalene	ND	20	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Acetone	ND	50	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Bromobenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Bromodichloromethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Bromoform	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 2

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:35:00 AM

Lab ID: 1508291-001

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Bromomethane	ND	15	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
2-Butanone	ND	50	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Carbon disulfide	ND	50	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Carbon Tetrachloride	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Chlorobenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Chloroethane	ND	10	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Chloroform	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Chloromethane	ND	15	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
2-Chlorotoluene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
4-Chlorotoluene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
cis-1,2-DCE	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
cis-1,3-Dichloropropene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2-Dibromo-3-chloropropane	ND	10	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Dibromochloromethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Dibromomethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2-Dichlorobenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,3-Dichlorobenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,4-Dichlorobenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Dichlorodifluoromethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,1-Dichloroethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,1-Dichloroethene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2-Dichloropropane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,3-Dichloropropane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
2,2-Dichloropropane	ND	10	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,1-Dichloropropene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Hexachlorobutadiene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
2-Hexanone	ND	50	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Isopropylbenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
4-Isopropyltoluene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
4-Methyl-2-pentanone	ND	50	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Methylene Chloride	ND	15	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
n-Butylbenzene	ND	15	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
n-Propylbenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
sec-Butylbenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Styrene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
tert-Butylbenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,1,1,2-Tetrachloroethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,1,2,2-Tetrachloroethane	ND	10	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Tetrachloroethene (PCE)	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 2

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:35:00 AM

Lab ID: 1508291-001

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
trans-1,2-DCE	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
trans-1,3-Dichloropropene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2,3-Trichlorobenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2,4-Trichlorobenzene	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,1,1-Trichloroethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,1,2-Trichloroethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Trichloroethene (TCE)	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Trichlorofluoromethane	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
1,2,3-Trichloropropane	ND	10	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Vinyl chloride	ND	5.0	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Xylenes, Total	ND	7.5	D	µg/L	5	8/10/2015 7:40:24 PM	R28085
Surr: 1,2-Dichloroethane-d4	98.2	70-130	D	%REC	5	8/10/2015 7:40:24 PM	R28085
Surr: 4-Bromofluorobenzene	106	70-130	D	%REC	5	8/10/2015 7:40:24 PM	R28085
Surr: Dibromofluoromethane	103	70-130	D	%REC	5	8/10/2015 7:40:24 PM	R28085
Surr: Toluene-d8	98.2	70-130	D	%REC	5	8/10/2015 7:40:24 PM	R28085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 1

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:49:00 AM

Lab ID: 1508291-002

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	3.8	2.0		mg/L	1	8/12/2015 3:15:00 PM	20667
EPA METHOD 300.0: ANIONS							Analyst: LGT
Nitrate+Nitrite as N	ND	20		mg/L	100	8/20/2015 10:05:22 PM	R28365
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	33500	1000	*D	mg/L	1	8/12/2015 3:19:00 PM	20707
EPA METHOD 365.1: TOTAL PHOSPHOROUS							Analyst: JRR
Phosphorus, Total (As P)	0.069	0.010		mg/L	1	8/19/2015 9:48:33 AM	20864
SM 4500 NORG C: TKN							Analyst: SRM
Nitrogen, Kjeldahl, Total	6.2	1.0		mg/L	1	8/19/2015 9:30:00 AM	20835
SM 2540D: TSS							Analyst: KS
Suspended Solids	26	4.0		mg/L	1	8/11/2015 8:22:00 AM	20692
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/10/2015 8:29:49 PM	20682
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/10/2015 8:29:49 PM	20682
Surr: DNOP	108	72-136		%REC	1	8/10/2015 8:29:49 PM	20682
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/10/2015 6:47:19 PM	R28068
Surr: BFB	106	57.8-137		%REC	1	8/10/2015 6:47:19 PM	R28068
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Acenaphthylene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Aniline	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Anthracene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Azobenzene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Benz(a)anthracene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Benzo(a)pyrene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Benzo(b)fluoranthene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Benzo(k)fluoranthene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Benzoic acid	ND	20		µg/L	1	8/11/2015 3:09:36 PM	20676
Benzyl alcohol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 1

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:49:00 AM

Lab ID: 1508291-002

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Butyl benzyl phthalate	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Carbazole	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
4-Chloroaniline	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2-Chloronaphthalene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2-Chlorophenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Chrysene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Di-n-butyl phthalate	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Di-n-octyl phthalate	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Dibenzofuran	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
1,2-Dichlorobenzene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
1,3-Dichlorobenzene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
1,4-Dichlorobenzene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Diethyl phthalate	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Dimethyl phthalate	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2,4-Dichlorophenol	ND	20		µg/L	1	8/11/2015 3:09:36 PM	20676
2,4-Dimethylphenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/11/2015 3:09:36 PM	20676
2,4-Dinitrophenol	ND	20		µg/L	1	8/11/2015 3:09:36 PM	20676
2,4-Dinitrotoluene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2,6-Dinitrotoluene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Fluoranthene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Fluorene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Hexachlorobenzene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Hexachlorobutadiene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Hexachloroethane	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Isophorone	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
1-Methylnaphthalene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2-Methylnaphthalene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2-Methylphenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
3+4-Methylphenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
N-Nitrosodimethylamine	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 1

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:49:00 AM

Lab ID: 1508291-002

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Naphthalene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2-Nitroaniline	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
3-Nitroaniline	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
4-Nitroaniline	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Nitrobenzene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2-Nitrophenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
4-Nitrophenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Pentachlorophenol	ND	20		µg/L	1	8/11/2015 3:09:36 PM	20676
Phenanthrene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Phenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Pyrene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Pyridine	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/11/2015 3:09:36 PM	20676
Surr: 2-Fluorophenol	23.3	14.9-111		%REC	1	8/11/2015 3:09:36 PM	20676
Surr: Phenol-d5	46.6	11.3-108		%REC	1	8/11/2015 3:09:36 PM	20676
Surr: 2,4,6-Tribromophenol	31.6	15.7-154		%REC	1	8/11/2015 3:09:36 PM	20676
Surr: Nitrobenzene-d5	70.3	47.8-106		%REC	1	8/11/2015 3:09:36 PM	20676
Surr: 2-Fluorobiphenyl	69.9	21.3-123		%REC	1	8/11/2015 3:09:36 PM	20676
Surr: 4-Terphenyl-d14	44.8	14.3-135		%REC	1	8/11/2015 3:09:36 PM	20676
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Toluene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Ethylbenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Naphthalene	ND	2.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1-Methylnaphthalene	ND	4.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
2-Methylnaphthalene	ND	4.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Acetone	ND	10		µg/L	1	8/10/2015 8:07:52 PM	R28085
Bromobenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Bromodichloromethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Bromoform	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Bromomethane	ND	3.0		µg/L	1	8/10/2015 8:07:52 PM	R28085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 1

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:49:00 AM

Lab ID: 1508291-002

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
2-Butanone	ND	10		µg/L	1	8/10/2015 8:07:52 PM	R28085
Carbon disulfide	ND	10		µg/L	1	8/10/2015 8:07:52 PM	R28085
Carbon Tetrachloride	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Chlorobenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Chloroethane	ND	2.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Chloroform	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Chloromethane	ND	3.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
2-Chlorotoluene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
4-Chlorotoluene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
cis-1,2-DCE	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Dibromochloromethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Dibromomethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,1-Dichloroethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,1-Dichloroethene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2-Dichloropropane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,3-Dichloropropane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
2,2-Dichloropropane	ND	2.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,1-Dichloropropene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Hexachlorobutadiene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
2-Hexanone	ND	10		µg/L	1	8/10/2015 8:07:52 PM	R28085
Isopropylbenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
4-Isopropyltoluene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
4-Methyl-2-pentanone	ND	10		µg/L	1	8/10/2015 8:07:52 PM	R28085
Methylene Chloride	ND	3.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
n-Butylbenzene	ND	3.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
n-Propylbenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
sec-Butylbenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Styrene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
tert-Butylbenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
trans-1,2-DCE	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508291

Date Reported: 8/25/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Outfall 1

Project: 3RD Qtr-Outfalls

Collection Date: 8/6/2015 10:49:00 AM

Lab ID: 1508291-002

Matrix: AQUEOUS

Received Date: 8/7/2015 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Trichlorofluoromethane	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Vinyl chloride	ND	1.0		µg/L	1	8/10/2015 8:07:52 PM	R28085
Xylenes, Total	ND	1.5		µg/L	1	8/10/2015 8:07:52 PM	R28085
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%REC	1	8/10/2015 8:07:52 PM	R28085
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	8/10/2015 8:07:52 PM	R28085
Surr: Dibromofluoromethane	108	70-130		%REC	1	8/10/2015 8:07:52 PM	R28085
Surr: Toluene-d8	92.9	70-130		%REC	1	8/10/2015 8:07:52 PM	R28085

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	250		10.0	1	08/15/2015 21:14	WG809271

- 1Cp
- 2Tc
- 3Ss
- 4Cn
- 5Sr
- 6Qc
- 7Gl
- 8Al
- 9Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	530		100	10	08/19/2015 10:33	WG810124

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) 08/15/15 21:13

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L782870-01 Original Sample (OS) • Duplicate (DUP)

(OS) 08/15/15 21:17 • (DUP) 08/15/15 21:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	210	210	1	0.48		5

L781988-01 Original Sample (OS) • Duplicate (DUP)

(OS) 08/15/15 21:14 • (DUP) 08/15/15 21:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	250	250	1	0.00		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 08/15/15 21:13 • (LCSD) 08/15/15 21:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	183	174	175	95.1	95.6	90.0-110			0.573	5

L782679-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 08/15/15 21:16 • (MS) 08/15/15 21:16 • (MSD) 08/15/15 21:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	ND	410	410	103	103	1	90.0-110			0.000	5

Wet Chemistry by Method 410.4

L781988-02

Method Blank (MB)

(MB) 08/19/15 10:32

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L781988-02 Original Sample (OS) • Duplicate (DUP)

(OS) 08/19/15 10:33 • (DUP) 08/19/15 10:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	530	530	10	0.56		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 08/19/15 10:32 • (LCSD) 08/19/15 10:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	183	184	186	101	102	90.0-110			1.08	5

L783380-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 08/19/15 10:34 • (MS) 08/19/15 10:35 • (MSD) 08/19/15 10:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	4.61	424	425	106	106	1	90.0-110			0.236	5

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28061	RunNo:	28061					
Prep Date:		Analysis Date:	8/7/2015	SeqNo:	845156	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28061	RunNo:	28061					
Prep Date:		Analysis Date:	8/7/2015	SeqNo:	845157	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	98.1	90	110			
Nitrogen, Nitrate (As N)	2.7	0.10	2.500	0	106	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28365	RunNo:	28365					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856770	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28365	RunNo:	28365					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856771	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	MB-20682		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20682		RunNo: 28064					
Prep Date:	8/10/2015		Analysis Date: 8/10/2015		SeqNo: 845825		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.98		1.000		98.1	72	136			

Sample ID	LCS-20682		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20682		RunNo: 28064					
Prep Date:	8/10/2015		Analysis Date: 8/10/2015		SeqNo: 845826		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.4	1.0	5.000	0	127	60.1	156			
Surr: DNOP	0.55		0.5000		110	72	136			

Sample ID	1508291-001CMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	Outfall 2		Batch ID: 20682		RunNo: 28064					
Prep Date:	8/10/2015		Analysis Date: 8/10/2015		SeqNo: 845829		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	22	1.0	5.000	16.45	108	75.9	164			
Surr: DNOP	0.58		0.5000		116	72	136			

Sample ID	1508291-001CMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	Outfall 2		Batch ID: 20682		RunNo: 28064					
Prep Date:	8/10/2015		Analysis Date: 8/10/2015		SeqNo: 845830		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	24	1.0	5.000	16.45	156	75.9	164	10.6	22.1	
Surr: DNOP	0.60		0.5000		120	72	136	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	5ML-RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R28068		RunNo: 28068					
Prep Date:			Analysis Date: 8/10/2015		SeqNo: 845770		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		91.4	57.8	137			

Sample ID	2.5UG LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R28068		RunNo: 28068					
Prep Date:			Analysis Date: 8/10/2015		SeqNo: 845771		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	80	120			
Surr: BFB	20		20.00		97.7	57.8	137			

Sample ID	1508291-001B MS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Outfall 2		Batch ID: R28068		RunNo: 28068					
Prep Date:			Analysis Date: 8/10/2015		SeqNo: 845773		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0.06200	96.1	51	131			
Surr: BFB	22		20.00		108	57.8	137			

Sample ID	1508291-001B MSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Outfall 2		Batch ID: R28068		RunNo: 28068					
Prep Date:			Analysis Date: 8/10/2015		SeqNo: 845774		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0.06200	92.2	51	131	3.64	20	
Surr: BFB	22		20.00		109	57.8	137	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28085			RunNo: 28085					
Prep Date:		Analysis Date: 8/10/2015			SeqNo: 845871	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R28085				RunNo: 28085				
Prep Date:		Analysis Date: 8/10/2015				SeqNo: 845871	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R28085				RunNo: 28085				
Prep Date:		Analysis Date: 8/10/2015				SeqNo: 845872	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R28085			RunNo: 28085					
Prep Date:		Analysis Date: 8/10/2015			SeqNo: 845872		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Sample ID	rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28085			RunNo: 28085					
Prep Date:		Analysis Date: 8/10/2015			SeqNo: 845905		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28085	RunNo:	28085					
Prep Date:		Analysis Date:	8/10/2015	SeqNo:	845905	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID rb2		SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW		Batch ID: R28085			RunNo: 28085					
Prep Date:		Analysis Date: 8/10/2015			SeqNo: 845905		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID	100ng lcs2		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R28085		RunNo: 28085					
Prep Date:			Analysis Date: 8/10/2015		SeqNo: 845906		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	20	1.0	20.00	0	99.3	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	99.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	mb-20676		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20676		RunNo: 28136					
Prep Date:	8/10/2015		Analysis Date: 8/11/2015		SeqNo: 847798		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	mb-20676		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20676		RunNo: 28136					
Prep Date:	8/10/2015		Analysis Date: 8/11/2015		SeqNo: 847798		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	160		200.0		79.6	14.9	111			
Surr: Phenol-d5	170		200.0		84.6	11.3	108			
Surr: 2,4,6-Tribromophenol	180		200.0		90.3	15.7	154			
Surr: Nitrobenzene-d5	87		100.0		87.2	47.8	106			
Surr: 2-Fluorobiphenyl	85		100.0		84.9	21.3	123			
Surr: 4-Terphenyl-d14	97		100.0		97.1	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	Ics-20676		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20676		RunNo: 28136					
Prep Date:	8/10/2015		Analysis Date: 8/11/2015		SeqNo: 847799		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.1	47.8	99.7			
4-Chloro-3-methylphenol	140	10	200.0	0	71.8	58.1	103			
2-Chlorophenol	140	10	200.0	0	69.7	49.5	96.8			
1,4-Dichlorobenzene	73	10	100.0	0	72.7	40.4	89.4			
2,4-Dinitrotoluene	59	10	100.0	0	59.1	38.6	91.3			
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.6	53.9	95.6			
4-Nitrophenol	130	10	200.0	0	65.6	26.4	108			
Pentachlorophenol	110	20	200.0	0	56.5	36.5	86.6			
Phenol	140	10	200.0	0	71.6	29.3	108			
Pyrene	64	10	100.0	0	64.4	45.7	100			
1,2,4-Trichlorobenzene	75	10	100.0	0	74.8	39.3	94.5			
Surr: 2-Fluorophenol	140		200.0		69.0	14.9	111			
Surr: Phenol-d5	140		200.0		70.3	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.5	15.7	154			
Surr: Nitrobenzene-d5	71		100.0		71.5	47.8	106			
Surr: 2-Fluorobiphenyl	69		100.0		68.9	21.3	123			
Surr: 4-Terphenyl-d14	70		100.0		70.5	14.3	135			

Sample ID	Icsd-20676		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20676		RunNo: 28136					
Prep Date:	8/10/2015		Analysis Date: 8/11/2015		SeqNo: 847800		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	83	10	100.0	0	82.6	47.8	99.7	13.6	28.2	
4-Chloro-3-methylphenol	170	10	200.0	0	83.8	58.1	103	15.4	24.4	
2-Chlorophenol	150	10	200.0	0	74.6	49.5	96.8	6.79	28.1	
1,4-Dichlorobenzene	79	10	100.0	0	79.4	40.4	89.4	8.78	31.2	
2,4-Dinitrotoluene	69	10	100.0	0	68.9	38.6	91.3	15.3	44.4	
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.1	53.9	95.6	7.27	24.2	
4-Nitrophenol	150	10	200.0	0	74.0	26.4	108	11.9	36.6	
Pentachlorophenol	120	20	200.0	0	60.4	36.5	86.6	6.77	29.5	
Phenol	150	10	200.0	0	77.2	29.3	108	7.56	30	
Pyrene	71	10	100.0	0	70.9	45.7	100	9.64	31	
1,2,4-Trichlorobenzene	81	10	100.0	0	80.6	39.3	94.5	7.49	24	
Surr: 2-Fluorophenol	140		200.0		72.1	14.9	111	0	0	
Surr: Phenol-d5	150		200.0		74.7	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	150		200.0		76.5	15.7	154	0	0	
Surr: Nitrobenzene-d5	74		100.0		74.0	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		79.7	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup**Project:** 3RD Qtr-Outfalls

Sample ID	lcscd-20676	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	20676	RunNo:	28136					
Prep Date:	8/10/2015	Analysis Date:	8/11/2015	SeqNo:	847800	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	67		100.0		66.5	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	MB-20667		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 20667		RunNo: 28156					
Prep Date:	8/7/2015		Analysis Date: 8/12/2015		SeqNo: 848449		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB--20667		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 20667		RunNo: 28156					
Prep Date:	8/7/2015		Analysis Date: 8/12/2015		SeqNo: 848450		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-20667		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: 20667		RunNo: 28156					
Prep Date:	8/7/2015		Analysis Date: 8/12/2015		SeqNo: 848451		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	220	2.0	198.0	0	112	86.3	147			

Sample ID	LCSD-20667		SampType: LCSD		TestCode: SM5210B: BOD					
Client ID:	LCSS02		Batch ID: 20667		RunNo: 28156					
Prep Date:	8/7/2015		Analysis Date: 8/12/2015		SeqNo: 848452		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	240	2.0	198.0	0	119	86.3	147	6.10	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	MB-20864	SampType:	MBLK	TestCode:	EPA Method 365.1: Total Phosphorous					
Client ID:	PBW	Batch ID:	20864	RunNo:	28311					
Prep Date:	8/18/2015	Analysis Date:	8/19/2015	SeqNo:	854558	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	ND	0.010								

Sample ID	LCS-20864	SampType:	LCS	TestCode:	EPA Method 365.1: Total Phosphorous					
Client ID:	LCSW	Batch ID:	20864	RunNo:	28311					
Prep Date:	8/18/2015	Analysis Date:	8/19/2015	SeqNo:	854559	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	0.25	0.010	0.2500	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	MB-20707		SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW		Batch ID: 20707		RunNo: 28142					
Prep Date:	8/11/2015		Analysis Date: 8/12/2015		SeqNo: 847893		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-20707		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW		Batch ID: 20707		RunNo: 28142					
Prep Date:	8/11/2015		Analysis Date: 8/12/2015		SeqNo: 847894		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr-Outfalls

Sample ID	MB-20835	SampType:	MBLK	TestCode:	SM 4500 Norg C: TKN					
Client ID:	PBW	Batch ID:	20835	RunNo:	28318					
Prep Date:	8/17/2015	Analysis Date:	8/19/2015	SeqNo:	854786	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID	LCS-20835	SampType:	LCS	TestCode:	SM 4500 Norg C: TKN					
Client ID:	LCSW	Batch ID:	20835	RunNo:	28318					
Prep Date:	8/17/2015	Analysis Date:	8/19/2015	SeqNo:	854787	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	104	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508291

25-Aug-15

Client: Western Refining Southwest, Gallup**Project:** 3RD Qtr-Outfalls

Sample ID	MB-20692		SampType: MBLK		TestCode: SM 2540D: TSS					
Client ID:	PBW		Batch ID: 20692		RunNo: 28110					
Prep Date:	8/10/2015		Analysis Date: 8/11/2015		SeqNo: 846654		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	ND	4.0								

Sample ID	LCS-20692		SampType: LCS		TestCode: SM 2540D: TSS					
Client ID:	LCSW		Batch ID: 20692		RunNo: 28110					
Prep Date:	8/10/2015		Analysis Date: 8/11/2015		SeqNo: 846655		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	86	4.0	92.40	0	93.1	83.44	119.05			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508291

RcptNo: 1

Received by/date:	<i>AG</i>	<i>08/07/15</i>
Logged By:	Ashley Gallegos	8/7/2015 8:15:00 AM
Completed By:	Ashley Gallegos	8/7/2015 11:22:19 AM
Reviewed By:	<i>AG</i>	<i>08/08/15</i>

Chain of Custody

- Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Client

Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked for pH:	<i>6</i>
Adjusted?	<i><2 or >12 unless noted</i>
Checked by:	<i>AG</i>

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<i>[Signature]</i>	Date	<i>08/07/15</i>
By Whom:	<i>[Signature]</i>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<i>[Signature]</i>		
Client Instructions:	<i>[Signature]</i>		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 09, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3rd Quarter/Annual-OW Wells

OrderNo.: 1508655

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/13/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 12:00:00 PM

Lab ID: 1508655-001

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 1:45:01 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 1:45:01 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 1:45:01 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 1:45:01 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 12:00:00 PM

Lab ID: 1508655-001

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 1:45:01 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 1:45:01 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 1:45:01 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 1:45:01 PM	R28257
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	8/17/2015 1:45:01 PM	R28257
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	8/17/2015 1:45:01 PM	R28257
Surr: Dibromofluoromethane	112	70-130		%REC	1	8/17/2015 1:45:01 PM	R28257
Surr: Toluene-d8	101	70-130		%REC	1	8/17/2015 1:45:01 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 1:30:00 PM

Lab ID: 1508655-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 6:57:03 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 6:57:03 PM	F28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 6:57:03 PM	F28456
Uranium	0.011	0.0025		mg/L	5	8/25/2015 6:57:03 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.47	0.10		mg/L	1	8/18/2015 1:54:13 PM	R28321
Chloride	25	10		mg/L	20	8/18/2015 2:06:37 PM	R28321
Bromide	0.28	0.10		mg/L	1	8/18/2015 1:54:13 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 1:54:13 PM	R28321
Sulfate	130	10		mg/L	20	8/18/2015 2:06:37 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/18/2015 11:00:15 PM	R28321
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	1000	0.010		µmhos/cm	1	8/18/2015 5:50:16 PM	R28306
SM4500-H+B: PH							Analyst: JRR
pH	8.39	1.68	H	pH units	1	8/18/2015 5:50:16 PM	R28306
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.027	0.0020		mg/L	1	8/26/2015 2:25:18 PM	A28465
Cadmium	ND	0.0020		mg/L	1	8/26/2015 2:25:18 PM	A28465
Calcium	4.6	1.0		mg/L	1	8/26/2015 2:25:18 PM	A28465
Chromium	ND	0.0060		mg/L	1	8/26/2015 2:25:18 PM	A28465
Copper	ND	0.0060		mg/L	1	9/2/2015 12:07:57 PM	A28618
Iron	0.035	0.020		mg/L	1	8/26/2015 2:25:18 PM	A28465
Magnesium	ND	1.0		mg/L	1	8/26/2015 2:25:18 PM	A28465
Manganese	0.031	0.0020		mg/L	1	8/26/2015 2:25:18 PM	A28465
Potassium	1.4	1.0		mg/L	1	8/26/2015 2:25:18 PM	A28465
Silver	ND	0.0050		mg/L	1	9/2/2015 12:07:57 PM	A28618
Sodium	220	5.0		mg/L	5	8/26/2015 2:27:17 PM	A28465
Zinc	ND	0.010		mg/L	1	8/26/2015 2:25:18 PM	A28465
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.031	0.0020		mg/L	1	8/31/2015 5:52:38 PM	20907
Cadmium	ND	0.0020		mg/L	1	8/31/2015 5:52:38 PM	20907
Chromium	ND	0.0060		mg/L	1	8/31/2015 5:52:38 PM	20907
Copper	ND	0.0060		mg/L	1	8/31/2015 5:52:38 PM	20907
Iron	0.17	0.020		mg/L	1	8/31/2015 5:52:38 PM	20907
Manganese	0.033	0.0020		mg/L	1	8/31/2015 5:52:38 PM	20907
Silver	ND	0.0050		mg/L	1	8/31/2015 5:52:38 PM	20907
Zinc	ND	0.010		mg/L	1	8/31/2015 5:52:38 PM	20907

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 1:30:00 PM

Lab ID: 1508655-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/26/2015 4:00:37 PM	20907
Lead	ND	0.00050		mg/L	1	8/26/2015 4:00:37 PM	20907
Selenium	ND	0.0010		mg/L	1	8/26/2015 4:00:37 PM	20907
Uranium	0.012	0.00050		mg/L	1	8/26/2015 4:00:37 PM	20907
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:22:40 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/17/2015 2:12:42 PM	R28257
Surr: BFB	101	70-130		%REC	1	8/17/2015 2:12:42 PM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 12:18:43 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 12:18:43 PM	20792
Surr: DNOP	111	72-136		%REC	1	8/18/2015 12:18:43 PM	20792
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Aniline	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 7:05:01 AM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 1:30:00 PM

Lab ID: 1508655-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 7:05:01 AM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 7:05:01 AM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 7:05:01 AM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 1:30:00 PM

Lab ID: 1508655-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 7:05:01 AM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Phenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 7:05:01 AM	20834
Surr: 2-Fluorophenol	57.7	14.9-111		%REC	1	8/25/2015 7:05:01 AM	20834
Surr: Phenol-d5	53.0	11.3-108		%REC	1	8/25/2015 7:05:01 AM	20834
Surr: 2,4,6-Tribromophenol	76.2	15.7-154		%REC	1	8/25/2015 7:05:01 AM	20834
Surr: Nitrobenzene-d5	69.6	47.8-106		%REC	1	8/25/2015 7:05:01 AM	20834
Surr: 2-Fluorobiphenyl	69.8	21.3-123		%REC	1	8/25/2015 7:05:01 AM	20834
Surr: 4-Terphenyl-d14	104	14.3-135		%REC	1	8/25/2015 7:05:01 AM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 2:12:42 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 2:12:42 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 2:12:42 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 2:12:42 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 1:30:00 PM

Lab ID: 1508655-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 2:12:42 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 2:12:42 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 1:30:00 PM

Lab ID: 1508655-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 2:12:42 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 2:12:42 PM	R28257
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	8/17/2015 2:12:42 PM	R28257
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	8/17/2015 2:12:42 PM	R28257
Surr: Dibromofluoromethane	115	70-130		%REC	1	8/17/2015 2:12:42 PM	R28257
Surr: Toluene-d8	98.4	70-130		%REC	1	8/17/2015 2:12:42 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 2:30:00 PM

Lab ID: 1508655-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 7:00:07 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 7:00:07 PM	F28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 7:00:07 PM	F28456
Uranium	0.010	0.0025		mg/L	5	8/25/2015 7:00:07 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.47	0.10		mg/L	1	8/18/2015 2:19:02 PM	R28321
Chloride	31	10		mg/L	20	8/18/2015 2:31:27 PM	R28321
Bromide	0.36	0.10		mg/L	1	8/18/2015 2:19:02 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 2:19:02 PM	R28321
Sulfate	150	10		mg/L	20	8/18/2015 2:31:27 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/18/2015 11:49:54 PM	R28321
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	1200	0.010		µmhos/cm	1	8/18/2015 5:54:26 PM	R28306
SM4500-H+B: PH							Analyst: JRR
pH	8.39	1.68	H	pH units	1	8/18/2015 5:54:26 PM	R28306
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.048	0.0020		mg/L	1	8/26/2015 3:00:57 PM	A28465
Cadmium	ND	0.0020		mg/L	1	8/26/2015 3:00:57 PM	A28465
Calcium	24	1.0		mg/L	1	8/26/2015 3:00:57 PM	A28465
Chromium	ND	0.0060		mg/L	1	8/26/2015 3:00:57 PM	A28465
Copper	ND	0.0060		mg/L	1	8/26/2015 3:00:57 PM	A28465
Iron	ND	0.020		mg/L	1	8/26/2015 3:00:57 PM	A28465
Magnesium	4.2	1.0		mg/L	1	8/26/2015 3:00:57 PM	A28465
Manganese	0.089	0.0020	*	mg/L	1	8/26/2015 3:00:57 PM	A28465
Potassium	ND	1.0		mg/L	1	8/26/2015 3:00:57 PM	A28465
Silver	ND	0.0050		mg/L	1	9/2/2015 12:09:57 PM	A28618
Sodium	210	5.0		mg/L	5	8/26/2015 3:02:56 PM	A28465
Zinc	ND	0.010		mg/L	1	8/26/2015 3:00:57 PM	A28465
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.14	0.0020		mg/L	1	8/31/2015 5:54:42 PM	20907
Cadmium	ND	0.0020		mg/L	1	8/31/2015 5:54:42 PM	20907
Chromium	ND	0.0060		mg/L	1	8/31/2015 5:54:42 PM	20907
Copper	ND	0.0060		mg/L	1	8/31/2015 5:54:42 PM	20907
Iron	0.68	0.020	*	mg/L	1	8/31/2015 5:54:42 PM	20907
Manganese	0.14	0.0020	*	mg/L	1	8/31/2015 5:54:42 PM	20907
Silver	ND	0.0050		mg/L	1	8/31/2015 5:54:42 PM	20907
Zinc	0.017	0.010		mg/L	1	8/31/2015 5:54:42 PM	20907

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 2:30:00 PM

Lab ID: 1508655-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	8/26/2015 4:03:38 PM	20907
Lead	0.0024	0.00050		mg/L	1	8/26/2015 4:03:38 PM	20907
Selenium	ND	0.0010		mg/L	1	8/26/2015 4:03:38 PM	20907
Uranium	0.011	0.00050		mg/L	1	8/26/2015 4:03:38 PM	20907
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:24:44 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/17/2015 3:35:52 PM	R28257
Surr: BFB	99.8	70-130		%REC	1	8/17/2015 3:35:52 PM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 1:23:03 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 1:23:03 PM	20792
Surr: DNOP	107	72-136		%REC	1	8/18/2015 1:23:03 PM	20792
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Aniline	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 7:34:48 AM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 2:30:00 PM

Lab ID: 1508655-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 7:34:48 AM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 7:34:48 AM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 7:34:48 AM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 2:30:00 PM

Lab ID: 1508655-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 7:34:48 AM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Phenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 7:34:48 AM	20834
Surr: 2-Fluorophenol	71.2	14.9-111		%REC	1	8/25/2015 7:34:48 AM	20834
Surr: Phenol-d5	65.9	11.3-108		%REC	1	8/25/2015 7:34:48 AM	20834
Surr: 2,4,6-Tribromophenol	104	15.7-154		%REC	1	8/25/2015 7:34:48 AM	20834
Surr: Nitrobenzene-d5	89.5	47.8-106		%REC	1	8/25/2015 7:34:48 AM	20834
Surr: 2-Fluorobiphenyl	87.9	21.3-123		%REC	1	8/25/2015 7:34:48 AM	20834
Surr: 4-Terphenyl-d14	143	14.3-135	S	%REC	1	8/25/2015 7:34:48 AM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 3:35:52 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 3:35:52 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 3:35:52 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 3:35:52 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 2:30:00 PM

Lab ID: 1508655-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 3:35:52 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 3:35:52 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 2:30:00 PM

Lab ID: 1508655-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 3:35:52 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 3:35:52 PM	R28257
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	8/17/2015 3:35:52 PM	R28257
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	8/17/2015 3:35:52 PM	R28257
Surr: Dibromofluoromethane	115	70-130		%REC	1	8/17/2015 3:35:52 PM	R28257
Surr: Toluene-d8	97.0	70-130		%REC	1	8/17/2015 3:35:52 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 4:15:00 PM

Lab ID: 1508655-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 7:09:20 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 7:09:20 PM	F28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 7:09:20 PM	F28456
Uranium	0.048	0.0025	*	mg/L	5	8/25/2015 7:09:20 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.23	0.10		mg/L	1	8/18/2015 2:43:52 PM	R28321
Chloride	180	10		mg/L	20	8/18/2015 2:56:17 PM	R28321
Bromide	0.54	0.10		mg/L	1	8/18/2015 2:43:52 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 2:43:52 PM	R28321
Sulfate	42	10		mg/L	20	8/18/2015 2:56:17 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 12:02:19 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.088	0.0020		mg/L	1	8/26/2015 3:04:54 PM	A28465
Cadmium	ND	0.0020		mg/L	1	8/26/2015 3:04:54 PM	A28465
Calcium	67	1.0		mg/L	1	8/26/2015 3:04:54 PM	A28465
Chromium	ND	0.0060		mg/L	1	8/26/2015 3:04:54 PM	A28465
Copper	ND	0.0060		mg/L	1	8/26/2015 3:04:54 PM	A28465
Iron	0.071	0.020		mg/L	1	8/26/2015 3:04:54 PM	A28465
Magnesium	16	1.0		mg/L	1	8/26/2015 3:04:54 PM	A28465
Manganese	0.037	0.0020		mg/L	1	8/26/2015 3:04:54 PM	A28465
Potassium	ND	1.0		mg/L	1	8/26/2015 3:04:54 PM	A28465
Silver	ND	0.0050		mg/L	1	9/2/2015 12:11:57 PM	A28618
Sodium	350	5.0		mg/L	5	8/26/2015 3:06:57 PM	A28465
Zinc	0.011	0.010		mg/L	1	8/26/2015 3:04:54 PM	A28465
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.091	0.0020		mg/L	1	8/31/2015 5:56:46 PM	20907
Cadmium	ND	0.0020		mg/L	1	8/31/2015 5:56:46 PM	20907
Chromium	ND	0.0060		mg/L	1	8/31/2015 5:56:46 PM	20907
Copper	ND	0.0060		mg/L	1	8/31/2015 5:56:46 PM	20907
Iron	0.073	0.020		mg/L	1	8/31/2015 5:56:46 PM	20907
Manganese	0.037	0.0020		mg/L	1	8/31/2015 5:56:46 PM	20907
Silver	ND	0.0050		mg/L	1	8/31/2015 5:56:46 PM	20907
Zinc	ND	0.010		mg/L	1	8/31/2015 5:56:46 PM	20907
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/26/2015 6:28:27 PM	20907
Lead	ND	0.00050		mg/L	1	8/26/2015 4:06:38 PM	20907
Selenium	ND	0.0050		mg/L	5	8/26/2015 6:28:27 PM	20907

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 4:15:00 PM

Lab ID: 1508655-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.048	0.0025	*	mg/L	5	8/26/2015 6:28:27 PM	20907
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:31:04 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	2.1	0.050		mg/L	1	8/17/2015 4:58:59 PM	R28257
Surr: BFB	98.4	70-130		%REC	1	8/17/2015 4:58:59 PM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	3.6	1.0		mg/L	1	8/18/2015 1:44:24 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 1:44:24 PM	20792
Surr: DNOP	104	72-136		%REC	1	8/18/2015 1:44:24 PM	20792
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Methyl tert-butyl ether (MTBE)	3800	100		µg/L	100	8/18/2015 5:42:52 PM	B28297
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 4:58:59 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 4:58:59 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 4:58:59 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 4:15:00 PM

Lab ID: 1508655-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 4:58:59 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 4:58:59 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 4:58:59 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 4:58:59 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 4:15:00 PM

Lab ID: 1508655-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/17/2015 4:58:59 PM	R28257
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/17/2015 4:58:59 PM	R28257
Surr: Dibromofluoromethane	115	70-130		%REC	1	8/17/2015 4:58:59 PM	R28257
Surr: Toluene-d8	99.7	70-130		%REC	1	8/17/2015 4:58:59 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 5:00:00 PM

Lab ID: 1508655-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0091	0.0050		mg/L	5	8/27/2015 3:04:03 PM	B28505
Lead	ND	0.0025		mg/L	5	8/27/2015 3:04:03 PM	B28505
Selenium	ND	0.010		mg/L	10	8/27/2015 4:27:13 PM	B28505
Uranium	0.0060	0.0025		mg/L	5	8/27/2015 3:04:03 PM	B28505
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/18/2015 3:08:41 PM	R28321
Chloride	320	10		mg/L	20	8/18/2015 3:21:06 PM	R28321
Bromide	2.6	0.50		mg/L	5	8/18/2015 3:08:41 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/18/2015 3:08:41 PM	R28321
Sulfate	ND	2.5		mg/L	5	8/18/2015 3:08:41 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 12:14:44 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	1.9	0.010		mg/L	5	8/26/2015 3:10:45 PM	A28465
Cadmium	ND	0.0020		mg/L	1	8/26/2015 3:09:00 PM	A28465
Calcium	84	1.0		mg/L	1	8/26/2015 3:09:00 PM	A28465
Chromium	0.0063	0.0060		mg/L	1	8/26/2015 3:09:00 PM	A28465
Copper	ND	0.0060		mg/L	1	8/26/2015 3:09:00 PM	A28465
Iron	4.5	0.10	*	mg/L	5	8/26/2015 3:10:45 PM	A28465
Magnesium	25	1.0		mg/L	1	8/26/2015 3:09:00 PM	A28465
Manganese	2.0	0.010	*	mg/L	5	8/26/2015 3:10:45 PM	A28465
Potassium	ND	1.0		mg/L	1	8/26/2015 3:09:00 PM	A28465
Silver	ND	0.0050		mg/L	1	9/2/2015 12:14:00 PM	A28618
Sodium	360	5.0		mg/L	5	8/26/2015 3:10:45 PM	A28465
Zinc	ND	0.010		mg/L	1	8/26/2015 3:09:00 PM	A28465
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.9	0.010		mg/L	5	9/2/2015 12:54:33 PM	20907
Cadmium	ND	0.0020		mg/L	1	8/31/2015 5:58:42 PM	20907
Chromium	ND	0.0060		mg/L	1	8/31/2015 5:58:42 PM	20907
Copper	ND	0.0060		mg/L	1	8/31/2015 5:58:42 PM	20907
Iron	4.6	0.10	*	mg/L	5	9/2/2015 12:54:33 PM	20907
Manganese	2.2	0.010	*	mg/L	5	9/2/2015 12:54:33 PM	20907
Silver	ND	0.0050		mg/L	1	8/31/2015 5:58:42 PM	20907
Zinc	ND	0.010		mg/L	1	8/31/2015 5:58:42 PM	20907
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0088	0.0010		mg/L	1	8/26/2015 4:15:43 PM	20907
Lead	ND	0.00050		mg/L	1	8/26/2015 4:15:43 PM	20907
Selenium	ND	0.010		mg/L	10	8/26/2015 6:31:28 PM	20907

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 5:00:00 PM

Lab ID: 1508655-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0068	0.00050		mg/L	1	8/26/2015 4:15:43 PM	20907
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:33:09 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	8.7	0.50		mg/L	10	8/17/2015 5:54:18 PM	R28257
Surr: BFB	98.4	70-130		%REC	10	8/17/2015 5:54:18 PM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	2.7	1.0		mg/L	1	8/18/2015 2:05:54 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 2:05:54 PM	20792
Surr: DNOP	93.8	72-136		%REC	1	8/18/2015 2:05:54 PM	20792
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	5400	100		µg/L	100	8/17/2015 5:26:39 PM	R28257
Toluene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Ethylbenzene	160	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Methyl tert-butyl ether (MTBE)	780	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2,4-Trimethylbenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Naphthalene	ND	20		µg/L	10	8/17/2015 5:54:18 PM	R28257
1-Methylnaphthalene	ND	40		µg/L	10	8/17/2015 5:54:18 PM	R28257
2-Methylnaphthalene	ND	40		µg/L	10	8/17/2015 5:54:18 PM	R28257
Acetone	ND	100		µg/L	10	8/17/2015 5:54:18 PM	R28257
Bromobenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Bromodichloromethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Bromoform	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Bromomethane	ND	30		µg/L	10	8/17/2015 5:54:18 PM	R28257
2-Butanone	ND	100		µg/L	10	8/17/2015 5:54:18 PM	R28257
Carbon disulfide	ND	100		µg/L	10	8/17/2015 5:54:18 PM	R28257
Carbon Tetrachloride	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Chlorobenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Chloroethane	ND	20		µg/L	10	8/17/2015 5:54:18 PM	R28257
Chloroform	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Chloromethane	ND	30		µg/L	10	8/17/2015 5:54:18 PM	R28257
2-Chlorotoluene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
4-Chlorotoluene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
cis-1,2-DCE	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 5:00:00 PM

Lab ID: 1508655-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/17/2015 5:54:18 PM	R28257
Dibromochloromethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Dibromomethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2-Dichlorobenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,3-Dichlorobenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,4-Dichlorobenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Dichlorodifluoromethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,1-Dichloroethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,1-Dichloroethene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2-Dichloropropane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,3-Dichloropropane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
2,2-Dichloropropane	ND	20		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,1-Dichloropropene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Hexachlorobutadiene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
2-Hexanone	ND	100		µg/L	10	8/17/2015 5:54:18 PM	R28257
Isopropylbenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
4-Isopropyltoluene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
4-Methyl-2-pentanone	ND	100		µg/L	10	8/17/2015 5:54:18 PM	R28257
Methylene Chloride	ND	30		µg/L	10	8/17/2015 5:54:18 PM	R28257
n-Butylbenzene	ND	30		µg/L	10	8/17/2015 5:54:18 PM	R28257
n-Propylbenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
sec-Butylbenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Styrene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
tert-Butylbenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/17/2015 5:54:18 PM	R28257
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
trans-1,2-DCE	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,1,1-Trichloroethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,1,2-Trichloroethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Trichloroethene (TCE)	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Trichlorofluoromethane	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
1,2,3-Trichloropropane	ND	20		µg/L	10	8/17/2015 5:54:18 PM	R28257
Vinyl chloride	ND	10		µg/L	10	8/17/2015 5:54:18 PM	R28257
Xylenes, Total	ND	15		µg/L	10	8/17/2015 5:54:18 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/10/2015 5:00:00 PM

Lab ID: 1508655-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	10	8/17/2015 5:54:18 PM	R28257
Surr: 4-Bromofluorobenzene	107	70-130		%REC	10	8/17/2015 5:54:18 PM	R28257
Surr: Dibromofluoromethane	114	70-130		%REC	10	8/17/2015 5:54:18 PM	R28257
Surr: Toluene-d8	97.2	70-130		%REC	10	8/17/2015 5:54:18 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508655-007

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/17/2015 6:21:54 PM	R28257
Surr: BFB	99.0	70-130		%REC	1	8/17/2015 6:21:54 PM	R28257
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 6:21:54 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 6:21:54 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 6:21:54 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508655

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508655-007

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 6:21:54 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 6:21:54 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 6:21:54 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 6:21:54 PM	R28257
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/17/2015 6:21:54 PM	R28257
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	8/17/2015 6:21:54 PM	R28257
Surr: Dibromofluoromethane	110	70-130		%REC	1	8/17/2015 6:21:54 PM	R28257
Surr: Toluene-d8	99.5	70-130		%REC	1	8/17/2015 6:21:54 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A28465	RunNo:	28465					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	860371	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LLCS	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A28465	RunNo:	28465					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	860373	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	112	50	150			
Cadmium	ND	0.0020	0.002000	0	80.5	50	150			
Calcium	ND	1.0	0.5000	0	100	50	150			
Chromium	0.0075	0.0060	0.006000	0	125	50	150			
Copper	ND	0.0060	0.006000	0	94.7	50	150			
Iron	0.023	0.020	0.02000	0	117	50	150			
Magnesium	ND	1.0	0.5000	0	101	50	150			
Manganese	ND	0.0020	0.002000	0	93.0	50	150			
Potassium	ND	1.0	0.5000	0	97.5	50	150			
Sodium	ND	1.0	0.5000	0	103	50	150			
Zinc	ND	0.010	0.005000	0	107	50	150			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A28465	RunNo:	28465					
Prep Date:		Analysis Date:	8/26/2015	SeqNo:	860601	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.52	0.0020	0.5000	0	105	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.47	0.0060	0.5000	0	94.7	85	115			
Iron	0.54	0.020	0.5000	0	108	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: A28465			RunNo: 28465				
Prep Date:	Analysis Date: 8/26/2015			SeqNo: 860601		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	96.1	85	115			
Potassium	49	1.0	50.00	0	98.8	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			
Zinc	0.52	0.010	0.5000	0	103	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A28618			RunNo: 28618					
Prep Date:		Analysis Date: 9/2/2015			SeqNo: 865800		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Silver	ND	0.0050								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A28618		RunNo: 28618					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 865801		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.47	0.0060	0.5000	0	94.4	85	115			
Silver	0.088	0.0050	0.1000	0	88.3	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28618		RunNo: 28618					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 865802		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060	0.006000	0	97.2	50	150			
Silver	ND	0.0050	0.005000	0	90.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20907		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 20907		RunNo: 28465					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 860627		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-20907		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 20907		RunNo: 28465					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 860628		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	107	85	115			
Cadmium	0.52	0.0020	0.5000	0	105	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Silver	0.098	0.0050	0.1000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	LLLCS-20907		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 20907		RunNo: 28465					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 860629		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0021	0.0020	0.002000	0	103	50	150			
Chromium	0.0077	0.0060	0.006000	0	129	50	150			
Copper	ND	0.0060	0.006000	0	98.5	50	150			
Iron	0.026	0.020	0.02000	0	132	50	150			
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Silver	ND	0.0050	0.005000	0	97.0	50	150			
Zinc	ND	0.010	0.005000	0	93.6	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: F28456		RunNo: 28456					
Prep Date:			Analysis Date: 8/25/2015		SeqNo: 860085		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.0	85	115			
Lead	0.012	0.00050	0.01250	0	97.0	85	115			
Selenium	0.024	0.0010	0.02500	0	97.1	85	115			
Uranium	0.012	0.00050	0.01250	0	99.7	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: F28456		RunNo: 28456					
Prep Date:			Analysis Date: 8/25/2015		SeqNo: 860089		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	95.6	50	150			
Lead	0.00052	0.00050	0.0005000	0	103	50	150			
Selenium	ND	0.0010	0.001000	0	96.6	50	150			
Uranium	0.00050	0.00050	0.0005000	0	101	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: F28456			RunNo: 28456					
Prep Date:		Analysis Date: 8/25/2015			SeqNo: 860093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28505		RunNo: 28505					
Prep Date:			Analysis Date: 8/27/2015		SeqNo: 861951		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.1	85	115			
Lead	0.012	0.00050	0.01250	0	94.3	85	115			
Selenium	0.023	0.0010	0.02500	0	91.8	85	115			
Uranium	0.012	0.00050	0.01250	0	93.8	85	115			

Sample ID	LLCS		SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: B28505			RunNo: 28505				
Prep Date:			Analysis Date: 8/27/2015			SeqNo: 861952		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	B28505	RunNo:	28505					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	861952	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	92.1	50	150			
Lead	0.00054	0.00050	0.0005000	0	109	50	150			
Selenium	ND	0.0010	0.001000	0	98.6	50	150			
Uranium	ND	0.00050	0.0005000	0	96.2	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	B28505	RunNo:	28505					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	861953	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20907		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 20907		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861615		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-20907		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 20907		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861616		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	96.0	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	MSLL LCS-20907		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 20907		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861617		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	91.0	50	150			
Lead	0.00052	0.00050	0.0005000	0	105	50	150			
Selenium	ND	0.0010	0.001000	0	91.8	50	150			
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20945	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	20945	RunNo:	28450					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859572	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-20945	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	20945	RunNo:	28450					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859573	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854896		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854897		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	101	90	110			
Chloride	4.9	0.50	5.000	0	98.5	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	102	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854948		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854949		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Bromide	2.5	0.10	2.500	0	99.9	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28321		RunNo: 28321					
Prep Date:			Analysis Date: 8/18/2015		SeqNo: 854949		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0	99.8	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20792		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20792		RunNo: 28279					
Prep Date:	8/14/2015		Analysis Date: 8/18/2015		SeqNo: 853996		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	72	136			

Sample ID	LCS-20792		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20792		RunNo: 28279					
Prep Date:	8/14/2015		Analysis Date: 8/18/2015		SeqNo: 853997		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	102	52.4	154			
Surr: DNOP	0.47		0.5000		93.6	72	136			

Sample ID	1508655-002CMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	OW-52		Batch ID: 20792		RunNo: 28279					
Prep Date:	8/14/2015		Analysis Date: 8/18/2015		SeqNo: 853999		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	41.3	177			
Surr: DNOP	0.52		0.5000		104	72	136			

Sample ID	1508655-002CMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	OW-52		Batch ID: 20792		RunNo: 28279					
Prep Date:	8/14/2015		Analysis Date: 8/18/2015		SeqNo: 854000		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	117	-94.6	317	1.10	22.1	
Surr: DNOP	0.49		0.5000		98.2	72	136	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853495	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853495	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.0	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.8	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.2		10.00		92.4	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853496	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	21	1.0	20.00	0	106	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R28257			RunNo: 28257						
Prep Date:	Analysis Date: 8/17/2015			SeqNo: 853496		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		115	70	130			
Surr: Toluene-d8	9.9		10.00		99.5	70	130			

Sample ID 1508655-002a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: OW-52	Batch ID: R28257			RunNo: 28257						
Prep Date:	Analysis Date: 8/17/2015			SeqNo: 853499		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	12		10.00		116	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID 1508655-002a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: OW-52	Batch ID: R28257			RunNo: 28257						
Prep Date:	Analysis Date: 8/17/2015			SeqNo: 853500		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	70	130	0.0909	20	
Toluene	20	1.0	20.00	0	102	70	130	1.60	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	1.10	20	
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130	2.83	20	
Trichloroethene (TCE)	22	1.0	20.00	0	111	70	130	2.96	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		118	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.9	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28257			RunNo: 28257					
Prep Date:		Analysis Date: 8/18/2015			SeqNo: 853519		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/18/2015	SeqNo:	853519	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.8		10.00		98.3	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853520	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	20	1.0	20.00	0	100	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	100ng lcs2		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R28257			RunNo: 28257				
Prep Date:	Analysis Date: 8/17/2015			SeqNo: 853520		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: B28297			RunNo: 28297					
Prep Date:		Analysis Date: 8/18/2015			SeqNo: 854353		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Sample ID	100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: B28297		RunNo: 28297					
Prep Date:			Analysis Date: 8/18/2015		SeqNo: 854354		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID mb-20889	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 20889			RunNo: 28422						
Prep Date: 8/20/2015	Analysis Date: 8/24/2015			SeqNo: 858874		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.3	14.9	111			
Surr: Phenol-d5	140		200.0		70.9	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		70.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		73.8	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.1	21.3	123			
Surr: 4-Terphenyl-d14	51		100.0		51.5	14.3	135			

Sample ID lcs-20889	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSW	Batch ID: 20889			RunNo: 28422						
Prep Date: 8/20/2015	Analysis Date: 8/24/2015			SeqNo: 858875		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.0	14.9	111			
Surr: Phenol-d5	130		200.0		66.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.3	15.7	154			
Surr: Nitrobenzene-d5	68		100.0		67.5	47.8	106			
Surr: 2-Fluorobiphenyl	68		100.0		67.5	21.3	123			
Surr: 4-Terphenyl-d14	55		100.0		55.4	14.3	135			

Sample ID lcsd-20889	SampType: LCSD			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSS02	Batch ID: 20889			RunNo: 28422						
Prep Date: 8/20/2015	Analysis Date: 8/24/2015			SeqNo: 858876		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	150		200.0		77.4	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		81.4	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	82		100.0		82.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	21.3	123	0	0	
Surr: 4-Terphenyl-d14	62		100.0		61.7	14.3	135	0	0	

Sample ID mb-20834	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 20834			RunNo: 28422						
Prep Date: 8/17/2015	Analysis Date: 8/25/2015			SeqNo: 859164		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20834	RunNo:	28422					
Prep Date:	8/17/2015	Analysis Date:	8/25/2015	SeqNo:	859164	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859164		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	170		200.0		83.1	14.9	111			
Surr: Phenol-d5	170		200.0		85.4	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		98.2	15.7	154			
Surr: Nitrobenzene-d5	91		100.0		91.2	47.8	106			
Surr: 2-Fluorobiphenyl	92		100.0		91.9	21.3	123			
Surr: 4-Terphenyl-d14	140		100.0		141	14.3	135			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	Ics-20834		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859165		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	10	100.0	0	81.3	47.8	99.7			
4-Chloro-3-methylphenol	170	10	200.0	0	84.8	58.1	103			
2-Chlorophenol	160	10	200.0	0	82.1	49.5	96.8			
1,4-Dichlorobenzene	87	10	100.0	0	87.3	40.4	89.4			
2,4-Dinitrotoluene	62	10	100.0	0	62.4	38.6	91.3			
N-Nitrosodi-n-propylamine	81	10	100.0	0	81.4	53.9	95.6			
4-Nitrophenol	170	10	200.0	0	86.1	26.4	108			
Pentachlorophenol	170	20	200.0	0	83.0	36.5	86.6			
Phenol	160	10	200.0	0	78.1	29.3	108			
Pyrene	130	10	100.0	0	132	45.7	100			S
1,2,4-Trichlorobenzene	93	10	100.0	0	92.9	39.3	94.5			
Surr: 2-Fluorophenol	150		200.0		77.2	14.9	111			
Surr: Phenol-d5	160		200.0		81.5	11.3	108			
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	15.7	154			
Surr: Nitrobenzene-d5	84		100.0		83.8	47.8	106			
Surr: 2-Fluorobiphenyl	84		100.0		83.6	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		113	14.3	135			

Sample ID	Icsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	82	10	100.0	0	82.1	47.8	99.7	0.980	28.2	
4-Chloro-3-methylphenol	180	10	200.0	0	88.7	58.1	103	4.48	24.4	
2-Chlorophenol	180	10	200.0	0	88.0	49.5	96.8	6.93	28.1	
1,4-Dichlorobenzene	89	10	100.0	0	89.2	40.4	89.4	2.15	31.2	
2,4-Dinitrotoluene	63	10	100.0	0	62.9	38.6	91.3	0.862	44.4	
N-Nitrosodi-n-propylamine	91	10	100.0	0	90.6	53.9	95.6	10.7	24.2	
4-Nitrophenol	150	10	200.0	0	77.1	26.4	108	11.0	36.6	
Pentachlorophenol	160	20	200.0	0	79.2	36.5	86.6	4.59	29.5	
Phenol	170	10	200.0	0	84.2	29.3	108	7.55	30	
Pyrene	130	10	100.0	0	127	45.7	100	3.20	31	S
1,2,4-Trichlorobenzene	98	10	100.0	0	98.2	39.3	94.5	5.57	24	S
Surr: 2-Fluorophenol	160		200.0		79.0	14.9	111	0	0	
Surr: Phenol-d5	170		200.0		83.0	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	190		200.0		97.3	15.7	154	0	0	
Surr: Nitrobenzene-d5	84		100.0		84.2	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	87		100.0		86.9	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	lcsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	100		100.0		104	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508655

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853532	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.8		10.00		97.7	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853533	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	80.6	122			
Surr: BFB	10		10.00		103	70	130			

Sample ID	1508655-003B MS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	OW-50	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853536	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	104	53.8	128			
Surr: BFB	10		10.00		103	70	130			

Sample ID	1508655-003B MSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	OW-50	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853537	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	102	53.8	128	2.01	20	
Surr: BFB	10		10.00		101	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508655

RcptNo: 1

Received by/date:

CS

08/13/15

Logged By: Ashley Gallegos

8/13/2015 3:30:00 PM

AG

Completed By: Ashley Gallegos

8/13/2015 5:34:23 PM

AG

Reviewed By:

MG

08/14/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☒ No ☒
Sample -001A (vials 2 and 3 of 3) arrived broken. CS 08/14/15
12. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)
of preserved bottles checked for pH: *12*
(<2 or >12 unless noted)
Adjusted? *no*
Checked by: *CS*

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 09, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3rd Quarter/Annual-OW Wells

OrderNo.: 1508656

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 13 sample(s) on 8/13/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 7:30:00 AM

Lab ID: 1508656-001

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 7:44:32 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 7:44:32 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 7:44:32 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 7:44:32 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 7:30:00 AM

Lab ID: 1508656-001

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 7:44:32 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 7:44:32 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 7:44:32 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 7:44:32 PM	R28257
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/17/2015 7:44:32 PM	R28257
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	8/17/2015 7:44:32 PM	R28257
Surr: Dibromofluoromethane	112	70-130		%REC	1	8/17/2015 7:44:32 PM	R28257
Surr: Toluene-d8	98.8	70-130		%REC	1	8/17/2015 7:44:32 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 9:00:00 AM

Lab ID: 1508656-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 7:12:23 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 7:12:23 PM	F28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 7:12:23 PM	F28456
Uranium	0.017	0.0025		mg/L	5	8/25/2015 7:12:23 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.27	0.10		mg/L	1	8/18/2015 3:33:30 PM	R28321
Chloride	30	10		mg/L	20	8/18/2015 3:45:55 PM	R28321
Bromide	0.37	0.10		mg/L	1	8/18/2015 3:33:30 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 3:33:30 PM	R28321
Sulfate	150	10		mg/L	20	8/18/2015 3:45:55 PM	R28321
Nitrate+Nitrite as N	4.9	1.0		mg/L	5	8/19/2015 12:27:09 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.018	0.0020		mg/L	1	9/2/2015 4:30:07 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:30:07 PM	A28618
Calcium	8.1	1.0		mg/L	1	9/2/2015 4:30:07 PM	A28618
Chromium	ND	0.0060		mg/L	1	9/3/2015 1:24:17 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 4:30:07 PM	A28618
Iron	ND	0.020		mg/L	1	9/2/2015 4:30:07 PM	A28618
Magnesium	1.3	1.0		mg/L	1	9/2/2015 4:30:07 PM	A28618
Manganese	0.018	0.0020		mg/L	1	9/2/2015 4:30:07 PM	A28618
Potassium	1.3	1.0		mg/L	1	9/2/2015 4:30:07 PM	A28618
Silver	ND	0.0050		mg/L	1	9/2/2015 4:30:07 PM	A28618
Sodium	280	5.0		mg/L	5	9/3/2015 1:30:28 PM	A28648
Zinc	ND	0.010		mg/L	1	9/3/2015 1:24:17 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	8/31/2015 6:00:24 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:00:24 PM	20908
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:00:24 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:00:24 PM	20908
Iron	ND	0.020		mg/L	1	8/31/2015 6:00:24 PM	20908
Manganese	0.019	0.0020		mg/L	1	8/31/2015 6:00:24 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:00:24 PM	20908
Zinc	ND	0.010		mg/L	1	9/2/2015 12:58:46 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/26/2015 4:48:58 PM	20908
Lead	ND	0.00050		mg/L	1	8/26/2015 4:48:58 PM	20908
Selenium	ND	0.0010		mg/L	1	8/26/2015 4:48:58 PM	20908

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 9:00:00 AM

Lab ID: 1508656-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.018	0.00050		mg/L	1	8/26/2015 4:48:58 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:35:19 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/17/2015 8:12:04 PM	R28257
Surr: BFB	103	70-130		%REC	1	8/17/2015 8:12:04 PM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 2:48:57 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 2:48:57 PM	20792
Surr: DNOP	97.9	72-136		%REC	1	8/18/2015 2:48:57 PM	20792
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Methyl tert-butyl ether (MTBE)	31	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 8:12:04 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 8:12:04 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 8:12:04 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 9:00:00 AM

Lab ID: 1508656-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 8:12:04 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 8:12:04 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 8:12:04 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 8:12:04 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 9:00:00 AM

Lab ID: 1508656-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%REC	1	8/17/2015 8:12:04 PM	R28257
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	8/17/2015 8:12:04 PM	R28257
Surr: Dibromofluoromethane	107	70-130		%REC	1	8/17/2015 8:12:04 PM	R28257
Surr: Toluene-d8	104	70-130		%REC	1	8/17/2015 8:12:04 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 10:25:00 AM

Lab ID: 1508656-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 7:15:27 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 7:15:27 PM	F28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 7:15:27 PM	F28456
Uranium	0.053	0.0025	*	mg/L	5	8/25/2015 7:15:27 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.31	0.10		mg/L	1	8/18/2015 4:23:09 PM	R28321
Chloride	170	10		mg/L	20	8/18/2015 4:35:33 PM	R28321
Bromide	0.56	0.10		mg/L	1	8/18/2015 4:23:09 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 4:23:09 PM	R28321
Sulfate	70	10		mg/L	20	8/18/2015 4:35:33 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 12:39:33 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.059	0.0020		mg/L	1	9/2/2015 4:36:15 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:36:15 PM	A28618
Calcium	52	1.0		mg/L	1	9/2/2015 4:36:15 PM	A28618
Chromium	ND	0.0060		mg/L	1	9/3/2015 1:42:31 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 4:36:15 PM	A28618
Iron	0.24	0.020		mg/L	1	9/2/2015 4:36:15 PM	A28618
Magnesium	12	1.0		mg/L	1	9/2/2015 4:36:15 PM	A28618
Manganese	0.27	0.0020	*	mg/L	1	9/2/2015 4:36:15 PM	A28618
Potassium	ND	1.0		mg/L	1	9/2/2015 4:36:15 PM	A28618
Silver	ND	0.0050		mg/L	1	9/2/2015 4:36:15 PM	A28618
Sodium	400	5.0		mg/L	5	9/3/2015 1:44:34 PM	A28648
Zinc	0.012	0.010		mg/L	1	9/3/2015 1:42:31 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.063	0.0020		mg/L	1	8/31/2015 6:06:46 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:06:46 PM	20908
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:06:46 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:06:46 PM	20908
Iron	0.25	0.020		mg/L	1	8/31/2015 6:06:46 PM	20908
Manganese	0.28	0.0020	*	mg/L	1	8/31/2015 6:06:46 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:06:46 PM	20908
Zinc	ND	0.010		mg/L	1	9/2/2015 1:04:47 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/26/2015 6:34:29 PM	20908
Lead	ND	0.00050		mg/L	1	8/26/2015 4:51:58 PM	20908
Selenium	ND	0.0050		mg/L	5	8/26/2015 6:34:29 PM	20908

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 10:25:00 AM

Lab ID: 1508656-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.054	0.0025	*	mg/L	5	8/26/2015 6:34:29 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:37:26 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	2.4	0.25		mg/L	5	8/17/2015 9:07:03 PM	R28257
Surr: BFB	97.7	70-130		%REC	5	8/17/2015 9:07:03 PM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 3:10:21 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 3:10:21 PM	20792
Surr: DNOP	91.5	72-136		%REC	1	8/18/2015 3:10:21 PM	20792
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Toluene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Ethylbenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Methyl tert-butyl ether (MTBE)	3100	50		µg/L	50	8/17/2015 8:39:33 PM	R28257
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Naphthalene	ND	10		µg/L	5	8/17/2015 9:07:03 PM	R28257
1-Methylnaphthalene	ND	20		µg/L	5	8/17/2015 9:07:03 PM	R28257
2-Methylnaphthalene	ND	20		µg/L	5	8/17/2015 9:07:03 PM	R28257
Acetone	ND	50		µg/L	5	8/17/2015 9:07:03 PM	R28257
Bromobenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Bromodichloromethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Bromoform	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Bromomethane	ND	15		µg/L	5	8/17/2015 9:07:03 PM	R28257
2-Butanone	ND	50		µg/L	5	8/17/2015 9:07:03 PM	R28257
Carbon disulfide	ND	50		µg/L	5	8/17/2015 9:07:03 PM	R28257
Carbon Tetrachloride	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Chlorobenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Chloroethane	ND	10		µg/L	5	8/17/2015 9:07:03 PM	R28257
Chloroform	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Chloromethane	ND	15		µg/L	5	8/17/2015 9:07:03 PM	R28257
2-Chlorotoluene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
4-Chlorotoluene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
cis-1,2-DCE	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 10:25:00 AM

Lab ID: 1508656-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/17/2015 9:07:03 PM	R28257
Dibromochloromethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Dibromomethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,1-Dichloroethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,1-Dichloroethene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2-Dichloropropane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,3-Dichloropropane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
2,2-Dichloropropane	ND	10		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,1-Dichloropropene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Hexachlorobutadiene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
2-Hexanone	ND	50		µg/L	5	8/17/2015 9:07:03 PM	R28257
Isopropylbenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
4-Isopropyltoluene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
4-Methyl-2-pentanone	ND	50		µg/L	5	8/17/2015 9:07:03 PM	R28257
Methylene Chloride	ND	15		µg/L	5	8/17/2015 9:07:03 PM	R28257
n-Butylbenzene	ND	15		µg/L	5	8/17/2015 9:07:03 PM	R28257
n-Propylbenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
sec-Butylbenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Styrene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
tert-Butylbenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/17/2015 9:07:03 PM	R28257
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
trans-1,2-DCE	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Trichlorofluoromethane	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
1,2,3-Trichloropropane	ND	10		µg/L	5	8/17/2015 9:07:03 PM	R28257
Vinyl chloride	ND	5.0		µg/L	5	8/17/2015 9:07:03 PM	R28257
Xylenes, Total	ND	7.5		µg/L	5	8/17/2015 9:07:03 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 10:25:00 AM

Lab ID: 1508656-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%REC	5	8/17/2015 9:07:03 PM	R28257
Surr: 4-Bromofluorobenzene	101	70-130		%REC	5	8/17/2015 9:07:03 PM	R28257
Surr: Dibromofluoromethane	110	70-130		%REC	5	8/17/2015 9:07:03 PM	R28257
Surr: Toluene-d8	101	70-130		%REC	5	8/17/2015 9:07:03 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 11:30:00 AM

Lab ID: 1508656-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	8/27/2015 3:13:17 PM	B28505
Lead	ND	0.0025		mg/L	5	8/25/2015 7:18:30 PM	F28456
Selenium	0.018	0.0050		mg/L	5	8/25/2015 7:18:30 PM	F28456
Uranium	0.022	0.0025		mg/L	5	8/25/2015 7:18:30 PM	F28456
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	9/2/2015 4:38:18 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:38:18 PM	A28618
Chromium	ND	0.0060		mg/L	1	9/3/2015 1:46:40 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 4:38:18 PM	A28618
Iron	0.12	0.020		mg/L	1	9/2/2015 4:38:18 PM	A28618
Manganese	0.0039	0.0020		mg/L	1	9/2/2015 4:38:18 PM	A28618
Silver	ND	0.0050		mg/L	1	9/2/2015 4:38:18 PM	A28618
Zinc	ND	0.010		mg/L	1	9/3/2015 1:46:40 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.22	0.0020		mg/L	1	8/31/2015 6:08:44 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:08:44 PM	20908
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:08:44 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:08:44 PM	20908
Iron	6.1	0.20	*	mg/L	10	9/2/2015 1:08:46 PM	20908
Manganese	0.11	0.0020	*	mg/L	1	8/31/2015 6:08:44 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:08:44 PM	20908
Zinc	0.12	0.010		mg/L	1	9/2/2015 1:06:49 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	8/26/2015 6:43:30 PM	20908
Lead	0.0068	0.00050		mg/L	1	8/26/2015 5:01:00 PM	20908
Selenium	0.018	0.010		mg/L	10	8/26/2015 6:43:30 PM	20908
Uranium	0.025	0.00050		mg/L	1	8/26/2015 5:01:00 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:39:33 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/17/2015 9:34:39 PM	R28257
Surr: BFB	101	70-130		%REC	1	8/17/2015 9:34:39 PM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 3:31:53 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 3:31:53 PM	20792
Surr: DNOP	93.6	72-136		%REC	1	8/18/2015 3:31:53 PM	20792

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 11:30:00 AM

Lab ID: 1508656-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Toluene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Naphthalene	ND	2.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Acetone	ND	10		µg/L	1	8/17/2015 9:34:39 PM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Bromoform	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Bromomethane	ND	3.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
2-Butanone	ND	10		µg/L	1	8/17/2015 9:34:39 PM	R28257
Carbon disulfide	ND	10		µg/L	1	8/17/2015 9:34:39 PM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Chloroethane	ND	2.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Chloroform	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Chloromethane	ND	3.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2015 9:34:39 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 11:30:00 AM

Lab ID: 1508656-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
2-Hexanone	ND	10		µg/L	1	8/17/2015 9:34:39 PM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2015 9:34:39 PM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Styrene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/17/2015 9:34:39 PM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/17/2015 9:34:39 PM	R28257
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%REC	1	8/17/2015 9:34:39 PM	R28257
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	8/17/2015 9:34:39 PM	R28257
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/17/2015 9:34:39 PM	R28257
Surr: Toluene-d8	99.9	70-130		%REC	1	8/17/2015 9:34:39 PM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:03:00 PM

Lab ID: 1508656-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 7:21:33 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 7:21:33 PM	F28456
Selenium	0.0053	0.0050		mg/L	5	8/25/2015 7:21:33 PM	F28456
Uranium	0.020	0.0025		mg/L	5	8/25/2015 7:21:33 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.67	0.10		mg/L	1	8/18/2015 4:47:58 PM	R28321
Chloride	110	10		mg/L	20	8/18/2015 5:00:23 PM	R28321
Bromide	0.74	0.10		mg/L	1	8/18/2015 4:47:58 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 4:47:58 PM	R28321
Sulfate	100	10		mg/L	20	8/18/2015 5:00:23 PM	R28321
Nitrate+Nitrite as N	8.6	1.0		mg/L	5	8/19/2015 12:51:57 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.095	0.0020		mg/L	1	9/2/2015 4:44:54 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:44:54 PM	A28618
Calcium	74	1.0		mg/L	1	9/2/2015 4:44:54 PM	A28618
Chromium	ND	0.0060		mg/L	1	9/3/2015 1:53:23 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 4:44:54 PM	A28618
Iron	ND	0.020		mg/L	1	9/2/2015 4:44:54 PM	A28618
Magnesium	14	1.0		mg/L	1	9/2/2015 4:44:54 PM	A28618
Manganese	0.028	0.0020		mg/L	1	9/2/2015 4:44:54 PM	A28618
Potassium	ND	1.0		mg/L	1	9/2/2015 4:44:54 PM	A28618
Silver	ND	0.0050		mg/L	1	9/2/2015 4:44:54 PM	A28618
Sodium	380	5.0		mg/L	5	9/3/2015 1:55:26 PM	A28648
Zinc	ND	0.010		mg/L	1	9/3/2015 1:53:23 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.11	0.0020		mg/L	1	8/31/2015 6:16:15 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:16:15 PM	20908
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:16:15 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:16:15 PM	20908
Iron	0.72	0.020	*	mg/L	1	8/31/2015 6:16:15 PM	20908
Manganese	0.099	0.0020	*	mg/L	1	8/31/2015 6:16:15 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:16:15 PM	20908
Zinc	0.010	0.010		mg/L	1	9/2/2015 1:10:44 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	8/26/2015 6:46:31 PM	20908
Lead	0.0011	0.00050		mg/L	1	8/26/2015 5:04:00 PM	20908
Selenium	ND	0.010		mg/L	10	8/26/2015 6:46:31 PM	20908

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:03:00 PM

Lab ID: 1508656-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.025	0.00050		mg/L	1	8/26/2015 5:04:00 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:41:40 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/18/2015 12:46:57 AM	R28257
Surr: BFB	99.7	70-130		%REC	1	8/18/2015 12:46:57 AM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 3:53:24 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 3:53:24 PM	20792
Surr: DNOP	91.8	72-136		%REC	1	8/18/2015 3:53:24 PM	20792
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Aniline	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 8:04:29 AM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:03:00 PM

Lab ID: 1508656-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 8:04:29 AM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 8:04:29 AM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 8:04:29 AM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 8:04:29 AM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:03:00 PM

Lab ID: 1508656-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 8:04:29 AM	20834
Surr: 2-Fluorophenol	90.3	14.9-111		%REC	1	8/25/2015 8:04:29 AM	20834
Surr: Phenol-d5	79.2	11.3-108		%REC	1	8/25/2015 8:04:29 AM	20834
Surr: 2,4,6-Tribromophenol	134	15.7-154		%REC	1	8/25/2015 8:04:29 AM	20834
Surr: Nitrobenzene-d5	112	47.8-106	S	%REC	1	8/25/2015 8:04:29 AM	20834
Surr: 2-Fluorobiphenyl	109	21.3-123		%REC	1	8/25/2015 8:04:29 AM	20834
Surr: 4-Terphenyl-d14	150	14.3-135	S	%REC	1	8/25/2015 8:04:29 AM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Toluene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Naphthalene	ND	2.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Acetone	ND	10		µg/L	1	8/18/2015 12:46:57 AM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Bromoform	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Bromomethane	ND	3.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
2-Butanone	ND	10		µg/L	1	8/18/2015 12:46:57 AM	R28257
Carbon disulfide	ND	10		µg/L	1	8/18/2015 12:46:57 AM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Chloroethane	ND	2.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Chloroform	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Chloromethane	ND	3.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:03:00 PM

Lab ID: 1508656-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
2-Hexanone	ND	10		µg/L	1	8/18/2015 12:46:57 AM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/18/2015 12:46:57 AM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Styrene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/18/2015 12:46:57 AM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/18/2015 12:46:57 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:03:00 PM

Lab ID: 1508656-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%REC	1	8/18/2015 12:46:57 AM	R28257
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	8/18/2015 12:46:57 AM	R28257
Surr: Dibromofluoromethane	108	70-130		%REC	1	8/18/2015 12:46:57 AM	R28257
Surr: Toluene-d8	98.8	70-130		%REC	1	8/18/2015 12:46:57 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:26:00 PM

Lab ID: 1508656-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0072	0.0050		mg/L	5	8/25/2015 7:24:36 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 7:24:36 PM	F28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 7:24:36 PM	F28456
Uranium	ND	0.0025		mg/L	5	8/25/2015 7:24:36 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.6	0.10		mg/L	1	8/18/2015 5:12:48 PM	R28321
Chloride	310	10		mg/L	20	8/18/2015 5:25:12 PM	R28321
Bromide	0.62	0.10		mg/L	1	8/18/2015 5:12:48 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 5:12:48 PM	R28321
Sulfate	11	0.50		mg/L	1	8/18/2015 5:12:48 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 1:04:22 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	1.3	0.010		mg/L	5	9/3/2015 1:59:25 PM	A28648
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:46:57 PM	A28618
Calcium	75	1.0		mg/L	1	9/2/2015 4:46:57 PM	A28618
Chromium	ND	0.0060		mg/L	1	9/3/2015 1:57:20 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 4:46:57 PM	A28618
Iron	1.4	0.10	*	mg/L	5	9/3/2015 1:59:25 PM	A28648
Magnesium	15	1.0		mg/L	1	9/2/2015 4:46:57 PM	A28618
Manganese	1.2	0.010	*	mg/L	5	9/3/2015 1:59:25 PM	A28648
Potassium	ND	1.0		mg/L	1	9/2/2015 4:46:57 PM	A28618
Silver	ND	0.0050		mg/L	1	9/2/2015 4:46:57 PM	A28618
Sodium	400	5.0		mg/L	5	9/3/2015 1:59:25 PM	A28648
Zinc	ND	0.010		mg/L	1	9/3/2015 1:57:20 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.6	0.010		mg/L	5	9/2/2015 1:20:39 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:18:10 PM	20908
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:18:10 PM	20908
Copper	0.0099	0.0060		mg/L	1	8/31/2015 6:18:10 PM	20908
Iron	3.3	0.10	*	mg/L	5	9/2/2015 1:20:39 PM	20908
Manganese	1.2	0.010	*	mg/L	5	9/2/2015 1:20:39 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:18:10 PM	20908
Zinc	0.016	0.010		mg/L	1	9/2/2015 4:41:59 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0080	0.0010		mg/L	1	8/26/2015 5:07:01 PM	20908
Lead	0.0023	0.00050		mg/L	1	8/26/2015 5:07:01 PM	20908
Selenium	ND	0.0050		mg/L	5	8/26/2015 6:49:31 PM	20908

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:26:00 PM

Lab ID: 1508656-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.00050		mg/L	1	8/26/2015 5:07:01 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:43:39 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.51	0.050		mg/L	1	8/18/2015 1:14:21 AM	R28257
Surr: BFB	102	70-130		%REC	1	8/18/2015 1:14:21 AM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 4:15:07 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 4:15:07 PM	20792
Surr: DNOP	94.5	72-136		%REC	1	8/18/2015 4:15:07 PM	20792
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Aniline	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 8:34:14 AM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:26:00 PM

Lab ID: 1508656-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 8:34:14 AM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 8:34:14 AM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 8:34:14 AM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 8:34:14 AM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:26:00 PM

Lab ID: 1508656-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 8:34:14 AM	20834
Surr: 2-Fluorophenol	67.7	14.9-111		%REC	1	8/25/2015 8:34:14 AM	20834
Surr: Phenol-d5	63.3	11.3-108		%REC	1	8/25/2015 8:34:14 AM	20834
Surr: 2,4,6-Tribromophenol	105	15.7-154		%REC	1	8/25/2015 8:34:14 AM	20834
Surr: Nitrobenzene-d5	83.3	47.8-106		%REC	1	8/25/2015 8:34:14 AM	20834
Surr: 2-Fluorobiphenyl	86.5	21.3-123		%REC	1	8/25/2015 8:34:14 AM	20834
Surr: 4-Terphenyl-d14	120	14.3-135		%REC	1	8/25/2015 8:34:14 AM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	12	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Toluene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Ethylbenzene	2.8	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Methyl tert-butyl ether (MTBE)	200	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Naphthalene	3.3	2.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Acetone	ND	10		µg/L	1	8/18/2015 1:14:21 AM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Bromoform	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Bromomethane	ND	3.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
2-Butanone	ND	10		µg/L	1	8/18/2015 1:14:21 AM	R28257
Carbon disulfide	ND	10		µg/L	1	8/18/2015 1:14:21 AM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Chloroethane	ND	2.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Chloroform	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Chloromethane	ND	3.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:26:00 PM

Lab ID: 1508656-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
2-Hexanone	ND	10		µg/L	1	8/18/2015 1:14:21 AM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/18/2015 1:14:21 AM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Styrene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/18/2015 1:14:21 AM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/18/2015 1:14:21 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:26:00 PM

Lab ID: 1508656-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	8/18/2015 1:14:21 AM	R28257
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	8/18/2015 1:14:21 AM	R28257
Surr: Dibromofluoromethane	108	70-130		%REC	1	8/18/2015 1:14:21 AM	R28257
Surr: Toluene-d8	101	70-130		%REC	1	8/18/2015 1:14:21 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:50:00 PM

Lab ID: 1508656-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/27/2015 3:16:20 PM	B28505
Lead	ND	0.0025		mg/L	5	8/27/2015 4:30:17 PM	B28505
Selenium	ND	0.0050		mg/L	5	8/27/2015 3:16:20 PM	B28505
Uranium	0.018	0.0025		mg/L	5	8/27/2015 3:16:20 PM	B28505
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.0	0.10		mg/L	1	8/18/2015 5:37:37 PM	R28321
Chloride	130	10		mg/L	20	8/18/2015 5:50:01 PM	R28321
Bromide	1.1	0.10		mg/L	1	8/18/2015 5:37:37 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 5:37:37 PM	R28321
Sulfate	52	10		mg/L	20	8/18/2015 5:50:01 PM	R28321
Nitrate+Nitrite as N	2.8	1.0		mg/L	5	8/19/2015 1:16:47 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.24	0.0020		mg/L	1	9/2/2015 4:49:03 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:49:03 PM	A28618
Calcium	61	1.0		mg/L	1	9/2/2015 4:49:03 PM	A28618
Chromium	ND	0.0060		mg/L	1	9/3/2015 2:07:20 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 4:49:03 PM	A28618
Iron	ND	0.020		mg/L	1	9/2/2015 4:49:03 PM	A28618
Magnesium	11	1.0		mg/L	1	9/2/2015 4:49:03 PM	A28618
Manganese	0.64	0.0020	*	mg/L	1	9/2/2015 4:49:03 PM	A28618
Potassium	ND	1.0		mg/L	1	9/2/2015 4:49:03 PM	A28618
Silver	ND	0.0050		mg/L	1	9/2/2015 4:49:03 PM	A28618
Sodium	320	5.0		mg/L	5	9/3/2015 2:09:22 PM	A28648
Zinc	0.28	0.010		mg/L	1	9/3/2015 2:07:20 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.29	0.0020		mg/L	1	8/31/2015 6:19:50 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:19:50 PM	20908
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:19:50 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:19:50 PM	20908
Iron	0.42	0.020	*	mg/L	1	8/31/2015 6:19:50 PM	20908
Manganese	1.6	0.010	*	mg/L	5	9/2/2015 1:24:37 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:19:50 PM	20908
Zinc	ND	0.010		mg/L	1	9/2/2015 4:43:41 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0023	0.0010		mg/L	1	8/26/2015 5:10:01 PM	20908
Lead	0.00077	0.00050		mg/L	1	8/26/2015 5:10:01 PM	20908
Selenium	ND	0.0050		mg/L	5	8/26/2015 6:52:32 PM	20908

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:50:00 PM

Lab ID: 1508656-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.019	0.00050		mg/L	1	8/26/2015 5:10:01 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:45:46 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/18/2015 1:41:52 AM	R28257
Surr: BFB	103	70-130		%REC	1	8/18/2015 1:41:52 AM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 4:36:36 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 4:36:36 PM	20792
Surr: DNOP	97.9	72-136		%REC	1	8/18/2015 4:36:36 PM	20792
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Aniline	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 9:04:09 AM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:50:00 PM

Lab ID: 1508656-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 9:04:09 AM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 9:04:09 AM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 9:04:09 AM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 9:04:09 AM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:50:00 PM

Lab ID: 1508656-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 9:04:09 AM	20834
Surr: 2-Fluorophenol	84.5	14.9-111		%REC	1	8/25/2015 9:04:09 AM	20834
Surr: Phenol-d5	73.5	11.3-108		%REC	1	8/25/2015 9:04:09 AM	20834
Surr: 2,4,6-Tribromophenol	123	15.7-154		%REC	1	8/25/2015 9:04:09 AM	20834
Surr: Nitrobenzene-d5	110	47.8-106	S	%REC	1	8/25/2015 9:04:09 AM	20834
Surr: 2-Fluorobiphenyl	110	21.3-123		%REC	1	8/25/2015 9:04:09 AM	20834
Surr: 4-Terphenyl-d14	141	14.3-135	S	%REC	1	8/25/2015 9:04:09 AM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Toluene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Methyl tert-butyl ether (MTBE)	11	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Naphthalene	ND	2.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Acetone	ND	10		µg/L	1	8/18/2015 1:41:52 AM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Bromoform	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Bromomethane	ND	3.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
2-Butanone	ND	10		µg/L	1	8/18/2015 1:41:52 AM	R28257
Carbon disulfide	ND	10		µg/L	1	8/18/2015 1:41:52 AM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Chloroethane	ND	2.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Chloroform	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Chloromethane	ND	3.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:50:00 PM

Lab ID: 1508656-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
2-Hexanone	ND	10		µg/L	1	8/18/2015 1:41:52 AM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/18/2015 1:41:52 AM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Styrene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/18/2015 1:41:52 AM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/18/2015 1:41:52 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 1:50:00 PM

Lab ID: 1508656-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%REC	1	8/18/2015 1:41:52 AM	R28257
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	1	8/18/2015 1:41:52 AM	R28257
Surr: Dibromofluoromethane	107	70-130		%REC	1	8/18/2015 1:41:52 AM	R28257
Surr: Toluene-d8	102	70-130		%REC	1	8/18/2015 1:41:52 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 2:30:00 PM

Lab ID: 1508656-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	8/27/2015 3:19:23 PM	B28505
Lead	ND	0.0025		mg/L	5	8/25/2015 7:27:40 PM	F28456
Selenium	0.020	0.0050		mg/L	5	8/25/2015 7:27:40 PM	F28456
Uranium	0.038	0.0025	*	mg/L	5	8/25/2015 7:27:40 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.28	0.10		mg/L	1	8/18/2015 6:02:25 PM	R28321
Chloride	920	50		mg/L	100	8/26/2015 7:22:36 PM	R28495
Bromide	5.1	0.10		mg/L	1	8/18/2015 6:02:25 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 6:02:25 PM	R28321
Sulfate	380	10		mg/L	20	8/18/2015 6:14:49 PM	R28321
Nitrate+Nitrite as N	24	1.0	*	mg/L	5	8/19/2015 1:29:12 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.041	0.0020		mg/L	1	9/2/2015 4:58:35 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 4:58:35 PM	A28618
Calcium	33	1.0		mg/L	1	9/2/2015 4:58:35 PM	A28618
Chromium	ND	0.0060		mg/L	1	9/3/2015 2:11:27 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 4:58:35 PM	A28618
Iron	0.044	0.020		mg/L	1	9/2/2015 4:58:35 PM	A28618
Magnesium	5.5	1.0		mg/L	1	9/2/2015 4:58:35 PM	A28618
Manganese	0.0029	0.0020		mg/L	1	9/2/2015 4:58:35 PM	A28618
Potassium	3.0	1.0		mg/L	1	9/2/2015 4:58:35 PM	A28618
Silver	ND	0.0050		mg/L	1	9/3/2015 2:11:27 PM	A28648
Sodium	940	10		mg/L	10	9/3/2015 2:13:34 PM	A28648
Zinc	0.049	0.010		mg/L	1	9/3/2015 2:11:27 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	8/31/2015 6:21:46 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:21:46 PM	20908
Chromium	0.0095	0.0060		mg/L	1	8/31/2015 6:21:46 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:21:46 PM	20908
Iron	2.2	0.10	*	mg/L	5	9/2/2015 1:28:38 PM	20908
Manganese	0.081	0.0020	*	mg/L	1	8/31/2015 6:21:46 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:21:46 PM	20908
Zinc	0.070	0.010		mg/L	1	9/2/2015 4:45:37 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	8/26/2015 7:01:37 PM	20908
Lead	0.0035	0.00050		mg/L	1	8/26/2015 5:13:02 PM	20908
Selenium	0.019	0.010		mg/L	10	8/26/2015 7:01:37 PM	20908

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 2:30:00 PM

Lab ID: 1508656-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.038	0.0050	*	mg/L	10	8/26/2015 7:01:37 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:47:47 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/18/2015 2:09:18 AM	R28257
Surr: BFB	95.1	70-130		%REC	1	8/18/2015 2:09:18 AM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/18/2015 4:58:09 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 4:58:09 PM	20792
Surr: DNOP	94.6	72-136		%REC	1	8/18/2015 4:58:09 PM	20792
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Aniline	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 10:49:13 AM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 2:30:00 PM

Lab ID: 1508656-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 10:49:13 AM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 10:49:13 AM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 10:49:13 AM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 10:49:13 AM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 2:30:00 PM

Lab ID: 1508656-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 10:49:13 AM	20834
Surr: 2-Fluorophenol	62.5	14.9-111		%REC	1	8/25/2015 10:49:13 AM	20834
Surr: Phenol-d5	55.8	11.3-108		%REC	1	8/25/2015 10:49:13 AM	20834
Surr: 2,4,6-Tribromophenol	93.6	15.7-154		%REC	1	8/25/2015 10:49:13 AM	20834
Surr: Nitrobenzene-d5	78.6	47.8-106		%REC	1	8/25/2015 10:49:13 AM	20834
Surr: 2-Fluorobiphenyl	81.0	21.3-123		%REC	1	8/25/2015 10:49:13 AM	20834
Surr: 4-Terphenyl-d14	109	14.3-135		%REC	1	8/25/2015 10:49:13 AM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Toluene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Naphthalene	ND	2.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Acetone	ND	10		µg/L	1	8/18/2015 2:09:18 AM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Bromoform	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Bromomethane	ND	3.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
2-Butanone	ND	10		µg/L	1	8/18/2015 2:09:18 AM	R28257
Carbon disulfide	ND	10		µg/L	1	8/18/2015 2:09:18 AM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Chloroethane	ND	2.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Chloroform	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Chloromethane	ND	3.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 2:30:00 PM

Lab ID: 1508656-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
2-Hexanone	ND	10		µg/L	1	8/18/2015 2:09:18 AM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/18/2015 2:09:18 AM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Styrene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/18/2015 2:09:18 AM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/18/2015 2:09:18 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 2:30:00 PM

Lab ID: 1508656-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/18/2015 2:09:18 AM	R28257
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	8/18/2015 2:09:18 AM	R28257
Surr: Dibromofluoromethane	108	70-130		%REC	1	8/18/2015 2:09:18 AM	R28257
Surr: Toluene-d8	98.4	70-130		%REC	1	8/18/2015 2:09:18 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:45:00 PM

Lab ID: 1508656-009

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.0050	*	mg/L	5	8/25/2015 7:30:43 PM	F28456
Lead	ND	0.0025		mg/L	5	8/25/2015 7:30:43 PM	F28456
Selenium	0.021	0.010		mg/L	10	8/27/2015 3:22:27 PM	B28505
Uranium	0.019	0.0025		mg/L	5	8/25/2015 7:30:43 PM	F28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.4	0.50		mg/L	5	8/18/2015 6:52:02 PM	R28321
Chloride	2000	100		mg/L	200	8/26/2015 7:35:00 PM	R28495
Bromide	5.7	0.50		mg/L	5	8/18/2015 6:52:02 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/18/2015 6:52:02 PM	R28321
Sulfate	20	2.5		mg/L	5	8/18/2015 6:52:02 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 2:18:50 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.59	0.0020		mg/L	1	9/2/2015 5:00:42 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 5:00:42 PM	A28618
Calcium	160	5.0		mg/L	5	9/3/2015 2:17:14 PM	A28648
Chromium	0.0069	0.0060		mg/L	1	9/3/2015 2:15:28 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 5:00:42 PM	A28618
Iron	4.7	0.10	*	mg/L	5	9/3/2015 2:17:14 PM	A28648
Magnesium	31	1.0		mg/L	1	9/2/2015 5:00:42 PM	A28618
Manganese	1.7	0.010	*	mg/L	5	9/3/2015 2:17:14 PM	A28648
Potassium	3.7	1.0		mg/L	1	9/2/2015 5:00:42 PM	A28618
Silver	ND	0.0050		mg/L	1	9/3/2015 2:15:28 PM	A28648
Sodium	1400	20		mg/L	20	9/3/2015 2:19:18 PM	A28648
Zinc	0.18	0.010		mg/L	1	9/3/2015 2:15:28 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.72	0.0020		mg/L	1	8/31/2015 6:23:26 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:23:26 PM	20908
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:23:26 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:23:26 PM	20908
Iron	8.4	0.20	*	mg/L	10	9/2/2015 1:32:23 PM	20908
Manganese	1.8	0.020	*	mg/L	10	9/2/2015 1:32:23 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:23:26 PM	20908
Zinc	0.035	0.010		mg/L	1	9/2/2015 4:47:33 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	8/26/2015 7:04:38 PM	20908
Lead	0.0077	0.00050		mg/L	1	8/26/2015 5:22:07 PM	20908
Selenium	0.018	0.010		mg/L	10	8/26/2015 7:04:38 PM	20908

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:45:00 PM

Lab ID: 1508656-009

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.020	0.00050		mg/L	1	8/26/2015 5:22:07 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:49:48 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.86	0.25		mg/L	5	8/18/2015 2:36:44 AM	R28257
Surr: BFB	97.2	70-130		%REC	5	8/18/2015 2:36:44 AM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	3.7	1.0		mg/L	1	8/18/2015 5:19:34 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 5:19:34 PM	20792
Surr: DNOP	93.6	72-136		%REC	1	8/18/2015 5:19:34 PM	20792
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Aniline	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 1:18:24 PM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:45:00 PM

Lab ID: 1508656-009

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 1:18:24 PM	20834
2,4-Dimethylphenol	24	10		µg/L	1	8/25/2015 1:18:24 PM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 1:18:24 PM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 1:18:24 PM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
1-Methylnaphthalene	21	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 1:18:24 PM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:45:00 PM

Lab ID: 1508656-009

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:18:24 PM	20834
Surr: 2-Fluorophenol	54.0	14.9-111		%REC	1	8/25/2015 1:18:24 PM	20834
Surr: Phenol-d5	51.9	11.3-108		%REC	1	8/25/2015 1:18:24 PM	20834
Surr: 2,4,6-Tribromophenol	82.0	15.7-154		%REC	1	8/25/2015 1:18:24 PM	20834
Surr: Nitrobenzene-d5	86.9	47.8-106		%REC	1	8/25/2015 1:18:24 PM	20834
Surr: 2-Fluorobiphenyl	76.0	21.3-123		%REC	1	8/25/2015 1:18:24 PM	20834
Surr: 4-Terphenyl-d14	99.9	14.3-135		%REC	1	8/25/2015 1:18:24 PM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	140	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Toluene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Ethylbenzene	15	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Methyl tert-butyl ether (MTBE)	290	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2,4-Trimethylbenzene	6.2	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,3,5-Trimethylbenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2-Dichloroethane (EDC)	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2-Dibromoethane (EDB)	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Naphthalene	ND	10	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1-Methylnaphthalene	40	20	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
2-Methylnaphthalene	ND	20	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Acetone	ND	50	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Bromobenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Bromodichloromethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Bromoform	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Bromomethane	ND	15	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
2-Butanone	ND	50	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Carbon disulfide	ND	50	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Carbon Tetrachloride	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Chlorobenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Chloroethane	ND	10	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Chloroform	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Chloromethane	ND	15	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
2-Chlorotoluene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
4-Chlorotoluene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
cis-1,2-DCE	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:45:00 PM

Lab ID: 1508656-009

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2-Dibromo-3-chloropropane	ND	10	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Dibromochloromethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Dibromomethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2-Dichlorobenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,3-Dichlorobenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,4-Dichlorobenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Dichlorodifluoromethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,1-Dichloroethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,1-Dichloroethene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2-Dichloropropane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,3-Dichloropropane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
2,2-Dichloropropane	ND	10	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,1-Dichloropropene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Hexachlorobutadiene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
2-Hexanone	ND	50	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Isopropylbenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
4-Isopropyltoluene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
4-Methyl-2-pentanone	ND	50	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Methylene Chloride	ND	15	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
n-Butylbenzene	ND	15	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
n-Propylbenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
sec-Butylbenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Styrene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
tert-Butylbenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,1,1,2-Tetrachloroethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,1,2,2-Tetrachloroethane	ND	10	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Tetrachloroethene (PCE)	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
trans-1,2-DCE	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
trans-1,3-Dichloropropene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2,3-Trichlorobenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2,4-Trichlorobenzene	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,1,1-Trichloroethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,1,2-Trichloroethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Trichloroethene (TCE)	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Trichlorofluoromethane	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
1,2,3-Trichloropropane	ND	10	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Vinyl chloride	ND	5.0	D	µg/L	5	8/18/2015 2:36:44 AM	R28257
Xylenes, Total	ND	7.5	D	µg/L	5	8/18/2015 2:36:44 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 3:45:00 PM

Lab ID: 1508656-009

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	96.8	70-130	D	%REC	5	8/18/2015 2:36:44 AM	R28257
Surr: 4-Bromofluorobenzene	104	70-130	D	%REC	5	8/18/2015 2:36:44 AM	R28257
Surr: Dibromofluoromethane	110	70-130	D	%REC	5	8/18/2015 2:36:44 AM	R28257
Surr: Toluene-d8	96.8	70-130	D	%REC	5	8/18/2015 2:36:44 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 4:10:00 PM

Lab ID: 1508656-010

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050		mg/L	50	8/25/2015 7:33:46 PM	F28456
Lead	ND	0.025		mg/L	50	8/25/2015 7:33:46 PM	F28456
Selenium	ND	0.050		mg/L	50	8/25/2015 7:33:46 PM	F28456
Uranium	ND	0.025		mg/L	50	8/25/2015 7:33:46 PM	F28456
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.41	0.0020		mg/L	1	9/2/2015 5:02:29 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 5:02:29 PM	A28618
Chromium	1.2	0.030	*	mg/L	5	9/3/2015 6:11:16 PM	B28647
Copper	ND	0.0060		mg/L	1	9/2/2015 5:02:29 PM	A28618
Iron	0.21	0.020		mg/L	1	9/2/2015 5:02:29 PM	A28618
Manganese	0.55	0.0020	*	mg/L	1	9/2/2015 5:02:29 PM	A28618
Silver	ND	0.0050		mg/L	1	9/3/2015 2:21:24 PM	A28648
Zinc	ND	0.010		mg/L	1	9/3/2015 2:21:24 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.60	0.0020		mg/L	1	8/31/2015 6:25:15 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:25:15 PM	20908
Chromium	1.4	0.030	*	mg/L	5	9/2/2015 1:36:27 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:25:15 PM	20908
Iron	1.9	0.10	*	mg/L	5	9/2/2015 1:36:27 PM	20908
Manganese	1.2	0.010	*	mg/L	5	9/2/2015 1:36:27 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:25:15 PM	20908
Zinc	0.081	0.010		mg/L	1	9/2/2015 4:56:30 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.020		mg/L	20	8/26/2015 5:25:08 PM	20908
Lead	ND	0.010		mg/L	20	8/26/2015 5:25:08 PM	20908
Selenium	ND	0.020		mg/L	20	8/26/2015 5:25:08 PM	20908
Uranium	ND	0.010		mg/L	20	8/26/2015 5:25:08 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:56:05 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	11	1.0		mg/L	20	8/18/2015 3:04:15 AM	R28257
Surr: BFB	98.4	70-130		%REC	20	8/18/2015 3:04:15 AM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	9.9	1.0		mg/L	1	8/18/2015 5:41:09 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 5:41:09 PM	20792
Surr: DNOP	94.1	72-136		%REC	1	8/18/2015 5:41:09 PM	20792

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 4:10:00 PM

Lab ID: 1508656-010

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	2700	100		µg/L	100	8/18/2015 5:15:14 PM	B28297
Toluene	740	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Ethylbenzene	83	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Methyl tert-butyl ether (MTBE)	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2,4-Trimethylbenzene	76	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,3,5-Trimethylbenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Naphthalene	56	40		µg/L	20	8/18/2015 3:04:15 AM	R28257
1-Methylnaphthalene	ND	80		µg/L	20	8/18/2015 3:04:15 AM	R28257
2-Methylnaphthalene	ND	80		µg/L	20	8/18/2015 3:04:15 AM	R28257
Acetone	ND	200		µg/L	20	8/18/2015 3:04:15 AM	R28257
Bromobenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Bromodichloromethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Bromoform	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Bromomethane	ND	60		µg/L	20	8/18/2015 3:04:15 AM	R28257
2-Butanone	ND	200		µg/L	20	8/18/2015 3:04:15 AM	R28257
Carbon disulfide	ND	200		µg/L	20	8/18/2015 3:04:15 AM	R28257
Carbon Tetrachloride	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Chlorobenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Chloroethane	ND	40		µg/L	20	8/18/2015 3:04:15 AM	R28257
Chloroform	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Chloromethane	ND	60		µg/L	20	8/18/2015 3:04:15 AM	R28257
2-Chlorotoluene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
4-Chlorotoluene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
cis-1,2-DCE	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/18/2015 3:04:15 AM	R28257
Dibromochloromethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Dibromomethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2-Dichlorobenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,3-Dichlorobenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,4-Dichlorobenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Dichlorodifluoromethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,1-Dichloroethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,1-Dichloroethene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2-Dichloropropane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,3-Dichloropropane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
2,2-Dichloropropane	ND	40		µg/L	20	8/18/2015 3:04:15 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 4:10:00 PM

Lab ID: 1508656-010

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Hexachlorobutadiene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
2-Hexanone	ND	200		µg/L	20	8/18/2015 3:04:15 AM	R28257
Isopropylbenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
4-Isopropyltoluene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
4-Methyl-2-pentanone	ND	200		µg/L	20	8/18/2015 3:04:15 AM	R28257
Methylene Chloride	ND	60		µg/L	20	8/18/2015 3:04:15 AM	R28257
n-Butylbenzene	ND	60		µg/L	20	8/18/2015 3:04:15 AM	R28257
n-Propylbenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
sec-Butylbenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Styrene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
tert-Butylbenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	8/18/2015 3:04:15 AM	R28257
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
trans-1,2-DCE	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,1,1-Trichloroethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,1,2-Trichloroethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Trichloroethene (TCE)	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Trichlorofluoromethane	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
1,2,3-Trichloropropane	ND	40		µg/L	20	8/18/2015 3:04:15 AM	R28257
Vinyl chloride	ND	20		µg/L	20	8/18/2015 3:04:15 AM	R28257
Xylenes, Total	440	30		µg/L	20	8/18/2015 3:04:15 AM	R28257
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	20	8/18/2015 3:04:15 AM	R28257
Surr: 4-Bromofluorobenzene	106	70-130		%REC	20	8/18/2015 3:04:15 AM	R28257
Surr: Dibromofluoromethane	109	70-130		%REC	20	8/18/2015 3:04:15 AM	R28257
Surr: Toluene-d8	95.2	70-130		%REC	20	8/18/2015 3:04:15 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EAST LDU

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 4:20:00 PM

Lab ID: 1508656-011

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050		mg/L	50	8/25/2015 7:42:59 PM	F28456
Lead	ND	0.050		mg/L	100	8/27/2015 4:33:21 PM	B28505
Selenium	ND	0.050		mg/L	50	8/25/2015 7:42:59 PM	F28456
Uranium	ND	0.050		mg/L	100	8/27/2015 3:25:30 PM	B28505
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.29	0.0020		mg/L	1	9/2/2015 5:04:31 PM	A28618
Cadmium	ND	0.0020		mg/L	1	9/2/2015 5:04:31 PM	A28618
Chromium	0.88	0.0060	*	mg/L	1	9/3/2015 2:23:27 PM	A28648
Copper	ND	0.0060		mg/L	1	9/2/2015 5:04:31 PM	A28618
Iron	0.026	0.020		mg/L	1	9/2/2015 5:04:31 PM	A28618
Manganese	2.8	0.010	*	mg/L	5	9/3/2015 2:25:31 PM	A28648
Silver	ND	0.0050		mg/L	1	9/3/2015 2:23:27 PM	A28648
Zinc	ND	0.010		mg/L	1	9/3/2015 2:23:27 PM	A28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.31	0.0020		mg/L	1	8/31/2015 6:26:58 PM	20908
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:26:58 PM	20908
Chromium	0.95	0.0060	*	mg/L	1	8/31/2015 6:26:58 PM	20908
Copper	ND	0.0060		mg/L	1	8/31/2015 6:26:58 PM	20908
Iron	0.29	0.020		mg/L	1	8/31/2015 6:26:58 PM	20908
Manganese	2.7	0.010	*	mg/L	5	9/2/2015 1:48:11 PM	20908
Silver	ND	0.0050		mg/L	1	8/31/2015 6:26:58 PM	20908
Zinc	0.016	0.010		mg/L	1	9/2/2015 4:58:16 PM	20908
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.050		mg/L	50	8/26/2015 5:28:08 PM	20908
Lead	ND	0.025		mg/L	50	8/26/2015 5:28:08 PM	20908
Selenium	ND	0.050		mg/L	50	8/26/2015 5:28:08 PM	20908
Uranium	ND	0.025		mg/L	50	8/26/2015 5:28:08 PM	20908
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/25/2015 2:58:06 PM	20945
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	15	1.0		mg/L	20	8/18/2015 3:31:47 AM	R28257
Surr: BFB	107	70-130		%REC	20	8/18/2015 3:31:47 AM	R28257
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	19	1.0		mg/L	1	8/18/2015 6:02:39 PM	20792
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/18/2015 6:02:39 PM	20792
Surr: DNOP	95.9	72-136		%REC	1	8/18/2015 6:02:39 PM	20792

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EAST LDU

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 4:20:00 PM

Lab ID: 1508656-011

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	1200	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Toluene	1100	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Ethylbenzene	340	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Methyl tert-butyl ether (MTBE)	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2,4-Trimethylbenzene	740	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,3,5-Trimethylbenzene	240	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Naphthalene	160	40		µg/L	20	8/18/2015 3:31:47 AM	R28257
1-Methylnaphthalene	ND	80		µg/L	20	8/18/2015 3:31:47 AM	R28257
2-Methylnaphthalene	97	80		µg/L	20	8/18/2015 3:31:47 AM	R28257
Acetone	ND	200		µg/L	20	8/18/2015 3:31:47 AM	R28257
Bromobenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Bromodichloromethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Bromoform	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Bromomethane	ND	60		µg/L	20	8/18/2015 3:31:47 AM	R28257
2-Butanone	460	200		µg/L	20	8/18/2015 3:31:47 AM	R28257
Carbon disulfide	ND	200		µg/L	20	8/18/2015 3:31:47 AM	R28257
Carbon Tetrachloride	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Chlorobenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Chloroethane	ND	40		µg/L	20	8/18/2015 3:31:47 AM	R28257
Chloroform	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Chloromethane	ND	60		µg/L	20	8/18/2015 3:31:47 AM	R28257
2-Chlorotoluene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
4-Chlorotoluene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
cis-1,2-DCE	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/18/2015 3:31:47 AM	R28257
Dibromochloromethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Dibromomethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2-Dichlorobenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,3-Dichlorobenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,4-Dichlorobenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Dichlorodifluoromethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,1-Dichloroethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,1-Dichloroethene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2-Dichloropropane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,3-Dichloropropane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
2,2-Dichloropropane	ND	40		µg/L	20	8/18/2015 3:31:47 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EAST LDU

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015 4:20:00 PM

Lab ID: 1508656-011

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,1-Dichloropropene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Hexachlorobutadiene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
2-Hexanone	ND	200		µg/L	20	8/18/2015 3:31:47 AM	R28257
Isopropylbenzene	32	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
4-Isopropyltoluene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
4-Methyl-2-pentanone	ND	200		µg/L	20	8/18/2015 3:31:47 AM	R28257
Methylene Chloride	ND	60		µg/L	20	8/18/2015 3:31:47 AM	R28257
n-Butylbenzene	ND	60		µg/L	20	8/18/2015 3:31:47 AM	R28257
n-Propylbenzene	45	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
sec-Butylbenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Styrene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
tert-Butylbenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	8/18/2015 3:31:47 AM	R28257
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
trans-1,2-DCE	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,1,1-Trichloroethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,1,2-Trichloroethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Trichloroethene (TCE)	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Trichlorofluoromethane	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
1,2,3-Trichloropropane	ND	40		µg/L	20	8/18/2015 3:31:47 AM	R28257
Vinyl chloride	ND	20		µg/L	20	8/18/2015 3:31:47 AM	R28257
Xylenes, Total	1700	30		µg/L	20	8/18/2015 3:31:47 AM	R28257
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	20	8/18/2015 3:31:47 AM	R28257
Surr: 4-Bromofluorobenzene	103	70-130		%REC	20	8/18/2015 3:31:47 AM	R28257
Surr: Dibromofluoromethane	109	70-130		%REC	20	8/18/2015 3:31:47 AM	R28257
Surr: Toluene-d8	104	70-130		%REC	20	8/18/2015 3:31:47 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015

Lab ID: 1508656-012

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Aniline	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 1:48:21 PM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 1:48:21 PM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 1:48:21 PM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 1:48:21 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/11/2015

Lab ID: 1508656-012

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: JDC			
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 1:48:21 PM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Phenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:48:21 PM	20834
Surr: 2-Fluorophenol	70.3	14.9-111		%REC	1	8/25/2015 1:48:21 PM	20834
Surr: Phenol-d5	60.0	11.3-108		%REC	1	8/25/2015 1:48:21 PM	20834
Surr: 2,4,6-Tribromophenol	101	15.7-154		%REC	1	8/25/2015 1:48:21 PM	20834
Surr: Nitrobenzene-d5	92.7	47.8-106		%REC	1	8/25/2015 1:48:21 PM	20834
Surr: 2-Fluorobiphenyl	89.0	21.3-123		%REC	1	8/25/2015 1:48:21 PM	20834
Surr: 4-Terphenyl-d14	110	14.3-135		%REC	1	8/25/2015 1:48:21 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508656-013

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/18/2015 4:47:32 PM	R28257
Surr: BFB	96.8	70-130		%REC	1	8/18/2015 4:47:32 PM	R28257
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Toluene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Ethylbenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Naphthalene	ND	2.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
2-Methylnaphthalene	ND	4.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Acetone	ND	10		µg/L	1	8/18/2015 3:59:18 AM	R28257
Bromobenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Bromodichloromethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Bromoform	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Bromomethane	ND	3.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
2-Butanone	ND	10		µg/L	1	8/18/2015 3:59:18 AM	R28257
Carbon disulfide	ND	10		µg/L	1	8/18/2015 3:59:18 AM	R28257
Carbon Tetrachloride	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Chlorobenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Chloroethane	ND	2.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Chloroform	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Chloromethane	ND	3.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
2-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
4-Chlorotoluene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
cis-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Dibromochloromethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Dibromomethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,1-Dichloroethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,1-Dichloroethene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508656

Date Reported: 9/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508656-013

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,3-Dichloropropane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
2,2-Dichloropropane	ND	2.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,1-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Hexachlorobutadiene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
2-Hexanone	ND	10		µg/L	1	8/18/2015 3:59:18 AM	R28257
Isopropylbenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
4-Isopropyltoluene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
4-Methyl-2-pentanone	ND	10		µg/L	1	8/18/2015 3:59:18 AM	R28257
Methylene Chloride	ND	3.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
n-Butylbenzene	ND	3.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
n-Propylbenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
sec-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Styrene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
tert-Butylbenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
trans-1,2-DCE	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Trichlorofluoromethane	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Vinyl chloride	ND	1.0		µg/L	1	8/18/2015 3:59:18 AM	R28257
Xylenes, Total	ND	1.5		µg/L	1	8/18/2015 3:59:18 AM	R28257
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	1	8/18/2015 3:59:18 AM	R28257
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	8/18/2015 3:59:18 AM	R28257
Surr: Dibromofluoromethane	109	70-130		%REC	1	8/18/2015 3:59:18 AM	R28257
Surr: Toluene-d8	99.3	70-130		%REC	1	8/18/2015 3:59:18 AM	R28257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

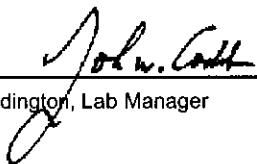
Client: HALL ENVIRONMENTAL ANALYSIS LAB **Batch #:** 150817012
Address: 4901 HAWKINS NE SUITE D **Project Name:** 1508656
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Analytical Results Report

Sample Number	150817012-001	Sampling Date	8/11/2015	Date/Time Received	8/17/2015 8:20 AM
Client Sample ID	1508656-009H / OAPIS-1	Sampling Time	3:45 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0796	mg/L	0.01	8/19/2015	MER	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A28618	RunNo:	28618					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	865800	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A28618	RunNo:	28618					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	865801	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.8	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Copper	0.47	0.0060	0.5000	0	94.4	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Potassium	49	1.0	50.00	0	97.4	85	115			
Silver	0.088	0.0050	0.1000	0	88.3	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A28618	RunNo:	28618					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	865802	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	119	50	150			
Cadmium	ND	0.0020	0.002000	0	89.5	50	150			
Calcium	ND	1.0	0.5000	0	105	50	150			
Copper	ND	0.0060	0.006000	0	97.2	50	150			
Iron	ND	0.020	0.02000	0	93.9	50	150			
Magnesium	ND	1.0	0.5000	0	101	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Potassium	ND	1.0	0.5000	0	98.7	50	150			
Silver	ND	0.0050	0.005000	0	90.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508656-002FMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-13		Batch ID:	A28618		RunNo:	28618			
Prep Date:			Analysis Date:	9/2/2015		SeqNo:	866233		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.01828	87.7	70	130			
Cadmium	0.48	0.0020	0.5000	0	95.4	70	130			
Calcium	54	1.0	50.00	8.101	91.1	70	130			
Copper	0.46	0.0060	0.5000	0	92.8	70	130			
Iron	0.45	0.020	0.5000	0	89.8	70	130			
Magnesium	49	1.0	50.00	1.312	96.1	70	130			
Manganese	0.45	0.0020	0.5000	0.01768	86.3	70	130			
Potassium	48	1.0	50.00	1.251	93.1	70	130			
Silver	0.081	0.0050	0.1000	0	80.8	70	130			

Sample ID	1508656-002FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-13		Batch ID:	A28618		RunNo:	28618			
Prep Date:			Analysis Date:	9/2/2015		SeqNo:	866234		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.01828	89.3	70	130	1.69	20	
Cadmium	0.49	0.0020	0.5000	0	97.6	70	130	2.32	20	
Calcium	55	1.0	50.00	8.101	93.4	70	130	2.09	20	
Copper	0.47	0.0060	0.5000	0	94.7	70	130	2.07	20	
Iron	0.46	0.020	0.5000	0	92.4	70	130	2.85	20	
Magnesium	51	1.0	50.00	1.312	98.6	70	130	2.56	20	
Manganese	0.46	0.0020	0.5000	0.01768	87.9	70	130	1.77	20	
Potassium	49	1.0	50.00	1.251	95.8	70	130	2.72	20	
Silver	0.091	0.0050	0.1000	0	90.7	70	130	11.6	20	

Sample ID	1508656-004DMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	STP1-NW		Batch ID:	A28618		RunNo:	28618			
Prep Date:			Analysis Date:	9/2/2015		SeqNo:	866237		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.1261	85.8	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.8	70	130			
Copper	0.48	0.0060	0.5000	0	96.0	70	130			
Iron	0.58	0.020	0.5000	0.1214	90.8	70	130			
Manganese	0.43	0.0020	0.5000	0.003870	84.9	70	130			
Silver	0.086	0.0050	0.1000	0	86.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508656-004DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	STP1-NW		Batch ID: A28618		RunNo: 28618					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866238		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.1261	88.1	70	130	2.05	20	
Cadmium	0.49	0.0020	0.5000	0	99.0	70	130	1.24	20	
Copper	0.49	0.0060	0.5000	0	97.0	70	130	1.03	20	
Iron	0.58	0.020	0.5000	0.1214	90.7	70	130	0.0678	20	
Manganese	0.44	0.0020	0.5000	0.003870	86.9	70	130	2.24	20	
Silver	0.088	0.0050	0.1000	0	87.5	70	130	1.81	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: B28647			RunNo: 28647					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867142		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867143		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	94.1	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867144		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0063	0.0060	0.006000	0	105	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A28648			RunNo: 28648					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867171		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Sodium	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A28648	RunNo:	28648					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867171	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A28648	RunNo:	28648					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867172	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	93.6	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Silver	0.086	0.0050	0.1000	0	86.4	85	115			
Sodium	51	1.0	50.00	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.2	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A28648	RunNo:	28648					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867173	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	117	50	150			
Calcium	ND	1.0	0.5000	0	99.9	50	150			
Chromium	0.0064	0.0060	0.006000	0	107	50	150			
Iron	ND	0.020	0.02000	0	81.2	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Silver	ND	0.0050	0.005000	0	69.6	50	150			
Sodium	ND	1.0	0.5000	0	102	50	150			
Zinc	ND	0.010	0.005000	0	67.4	50	150			

Sample ID	1508656-002FMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	OW-13	Batch ID:	A28648	RunNo:	28648					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867190	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	98.3	70	130			
Zinc	0.50	0.010	0.5000	0	100	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508656-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	OW-13		Batch ID: A28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867191		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	99.9	70	130	1.70	20	
Zinc	0.51	0.010	0.5000	0	102	70	130	2.20	20	

Sample ID	1508656-004DMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	STP1-NW		Batch ID: A28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867201		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	95.0	70	130			
Zinc	0.48	0.010	0.5000	0.009720	93.6	70	130			

Sample ID	1508656-004DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	STP1-NW		Batch ID: A28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867202		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.48	0.0060	0.5000	0	95.7	70	130	0.747	20	
Zinc	0.48	0.010	0.5000	0.009720	93.8	70	130	0.174	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: B28647			RunNo: 28647					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867614		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867615		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867616		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0060	0.0060	0.006000	0	100	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20908		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	20908		RunNo:	28465			
Prep Date:	8/21/2015		Analysis Date:	8/26/2015		SeqNo:	860596		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	LCS-20908		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	20908		RunNo:	28465			
Prep Date:	8/21/2015		Analysis Date:	8/26/2015		SeqNo:	860597		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.49	0.0060	0.5000	0	97.4	85	115			
Iron	0.54	0.020	0.5000	0	107	85	115			
Manganese	0.49	0.0020	0.5000	0	97.5	85	115			
Silver	0.097	0.0050	0.1000	0	97.3	85	115			

Sample ID	LLCS-20908		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	20908		RunNo:	28465			
Prep Date:	8/21/2015		Analysis Date:	8/26/2015		SeqNo:	860602		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	110	50	150			
Cadmium	ND	0.0020	0.002000	0	87.5	50	150			
Chromium	0.0061	0.0060	0.006000	0	101	50	150			
Copper	ND	0.0060	0.006000	0	93.5	50	150			
Iron	ND	0.020	0.02000	0	98.8	50	150			
Manganese	0.0020	0.0020	0.002000	0	100	50	150			
Silver	ND	0.0050	0.005000	0	94.2	50	150			

Sample ID	1508656-002GMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-13		Batch ID:	20908		RunNo:	28565			
Prep Date:	8/21/2015		Analysis Date:	8/31/2015		SeqNo:	864247		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02007	98.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508656-002GMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OW-13		Batch ID: 20908			RunNo: 28565				
Prep Date:	8/21/2015		Analysis Date: 8/31/2015			SeqNo: 864247		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.49	0.0060	0.5000	0	98.0	70	130			
Copper	0.53	0.0060	0.5000	0	107	70	130			
Iron	0.49	0.020	0.5000	0	97.8	70	130			
Manganese	0.50	0.0020	0.5000	0.01880	95.9	70	130			
Silver	0.10	0.0050	0.1000	0	101	70	130			

Sample ID	1508656-002GMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OW-13		Batch ID: 20908			RunNo: 28565				
Prep Date:	8/21/2015		Analysis Date: 8/31/2015			SeqNo: 864248		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02007	98.3	70	130	0.209	20	
Cadmium	0.50	0.0020	0.5000	0	99.9	70	130	0.304	20	
Chromium	0.49	0.0060	0.5000	0	97.6	70	130	0.435	20	
Copper	0.54	0.0060	0.5000	0	107	70	130	0.535	20	
Iron	0.50	0.020	0.5000	0	99.0	70	130	1.21	20	
Manganese	0.50	0.0020	0.5000	0.01880	96.3	70	130	0.353	20	
Silver	0.10	0.0050	0.1000	0	99.9	70	130	1.20	20	

Sample ID	MB-20908		SampType: MBLK			TestCode: EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID: 20908			RunNo: 28618				
Prep Date:	8/21/2015		Analysis Date: 9/2/2015			SeqNo: 865820		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	LCS-20908		SampType: LCS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID: 20908			RunNo: 28618				
Prep Date:	8/21/2015		Analysis Date: 9/2/2015			SeqNo: 865821		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0	98.7	85	115			

Sample ID	LLLCS-20908		SampType: LCSLL			TestCode: EPA Method 200.7: Total Metals				
Client ID:	BatchQC		Batch ID: 20908			RunNo: 28618				
Prep Date:	8/21/2015		Analysis Date: 9/2/2015			SeqNo: 865822		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010	0.005000	0	93.2	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508656-002GMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	OW-13	Batch ID:	20908	RunNo:	28618					
Prep Date:	8/21/2015	Analysis Date:	9/2/2015	SeqNo:	865874	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0	98.1	70	130			

Sample ID	1508656-002GMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	OW-13	Batch ID:	20908	RunNo:	28618					
Prep Date:	8/21/2015	Analysis Date:	9/2/2015	SeqNo:	865875	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0	97.4	70	130	0.667	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: F28456		RunNo: 28456					
Prep Date:			Analysis Date: 8/25/2015		SeqNo: 860085		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.0	85	115			
Lead	0.012	0.00050	0.01250	0	97.0	85	115			
Selenium	0.024	0.0010	0.02500	0	97.1	85	115			
Uranium	0.012	0.00050	0.01250	0	99.7	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: F28456		RunNo: 28456					
Prep Date:			Analysis Date: 8/25/2015		SeqNo: 860089		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	95.6	50	150			
Lead	0.00052	0.00050	0.0005000	0	103	50	150			
Selenium	ND	0.0010	0.001000	0	96.6	50	150			
Uranium	0.00050	0.00050	0.0005000	0	101	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: F28456			RunNo: 28456					
Prep Date:		Analysis Date: 8/25/2015			SeqNo: 860093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28505		RunNo: 28505					
Prep Date:			Analysis Date: 8/27/2015		SeqNo: 861951		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.1	85	115			
Lead	0.012	0.00050	0.01250	0	94.3	85	115			
Selenium	0.023	0.0010	0.02500	0	91.8	85	115			
Uranium	0.012	0.00050	0.01250	0	93.8	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28505		RunNo: 28505					
Prep Date:			Analysis Date: 8/27/2015		SeqNo: 861952		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	B28505	RunNo:	28505					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	861952	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	92.1	50	150			
Lead	0.00054	0.00050	0.0005000	0	109	50	150			
Selenium	ND	0.0010	0.001000	0	98.6	50	150			
Uranium	ND	0.00050	0.0005000	0	96.2	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	B28505	RunNo:	28505					
Prep Date:		Analysis Date:	8/27/2015	SeqNo:	861953	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508656-003GMSDL		SampType: MSDLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	OW-29		Batch ID: 20908		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861321		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0050	0.02500	0	107	70	130	0.180	20	
Selenium	0.028	0.0050	0.02500	0.003068	99.7	70	130	0.289	20	
Uranium	0.069	0.0025	0.01250	0.05378	124	70	130	1.72	20	

Sample ID	1508656-003GMSDL		SampType: MSDLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	OW-29		Batch ID: 20908		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861322		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	105	70	130	0.998	20	

Sample ID	1508656-003GMSLL		SampType: MSL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	OW-29		Batch ID: 20908		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861323		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0050	0.02500	0	108	70	130			
Selenium	0.028	0.0050	0.02500	0.003068	99.4	70	130			
Uranium	0.068	0.0025	0.01250	0.05378	114	70	130			

Sample ID	1508656-003GMSLL		SampType: MSL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	OW-29		Batch ID: 20908		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861324		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	104	70	130			

Sample ID	MB-20908		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 20908		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861343		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MSLCS-20908		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 20908		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861345		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.7	85	115			
Lead	0.012	0.00050	0.01250	0	99.8	85	115			
Selenium	0.023	0.0010	0.02500	0	93.8	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	MSLLCS-20908		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 20908		RunNo: 28478					
Prep Date:	8/21/2015		Analysis Date: 8/26/2015		SeqNo: 861347		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	94.1	50	150			
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	ND	0.0010	0.001000	0	92.5	50	150			
Uranium	0.00052	0.00050	0.0005000	0	103	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20945	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	20945	RunNo:	28450					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859572	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-20945	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	20945	RunNo:	28450					
Prep Date:	8/24/2015	Analysis Date:	8/25/2015	SeqNo:	859573	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854896		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854897		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	101	90	110			
Chloride	4.9	0.50	5.000	0	98.5	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	102	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854948		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854949		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Bromide	2.5	0.10	2.500	0	99.9	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28321		RunNo: 28321					
Prep Date:			Analysis Date: 8/18/2015		SeqNo: 854949		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0	99.8	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28495			RunNo: 28495					
Prep Date:		Analysis Date: 8/26/2015			SeqNo: 861647		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28495		RunNo: 28495					
Prep Date:			Analysis Date: 8/26/2015		SeqNo: 861648		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20792		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20792		RunNo: 28279					
Prep Date:	8/14/2015		Analysis Date: 8/18/2015		SeqNo: 853996		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	72	136			

Sample ID	LCS-20792		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20792		RunNo: 28279					
Prep Date:	8/14/2015		Analysis Date: 8/18/2015		SeqNo: 853997		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	102	52.4	154			
Surr: DNOP	0.47		0.5000		93.6	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R28257			RunNo: 28257						
Prep Date:	Analysis Date: 8/17/2015			SeqNo: 853495		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28257			RunNo: 28257					
Prep Date:		Analysis Date: 8/17/2015			SeqNo: 853495		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.0	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.8	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.2		10.00		92.4	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R28257			RunNo: 28257					
Prep Date:		Analysis Date: 8/17/2015			SeqNo: 853496		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	21	1.0	20.00	0	106	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID 100ng lcs		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW		Batch ID: R28257			RunNo: 28257					
Prep Date:		Analysis Date: 8/17/2015			SeqNo: 853496		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		115	70	130			
Surr: Toluene-d8	9.9		10.00		99.5	70	130			

Sample ID	rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28257			RunNo: 28257					
Prep Date:		Analysis Date: 8/18/2015			SeqNo: 853519		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28257			RunNo: 28257					
Prep Date:		Analysis Date: 8/18/2015			SeqNo: 853519	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R28257			RunNo: 28257						
Prep Date:	Analysis Date: 8/18/2015			SeqNo: 853519		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.8		10.00		98.3	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R28257			RunNo: 28257						
Prep Date:	Analysis Date: 8/17/2015			SeqNo: 853520		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	20	1.0	20.00	0	100	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: B28297			RunNo: 28297						
Prep Date:	Analysis Date: 8/18/2015			SeqNo: 854353		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: B28297			RunNo: 28297						
Prep Date:	Analysis Date: 8/18/2015			SeqNo: 854354		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20889		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	PBW		Batch ID:	20889		RunNo:	28422			
Prep Date:	8/20/2015		Analysis Date:	8/24/2015		SeqNo:	858874		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.3	14.9	111			
Surr: Phenol-d5	140		200.0		70.9	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		70.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		73.8	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.1	21.3	123			
Surr: 4-Terphenyl-d14	51		100.0		51.5	14.3	135			

Sample ID	lcs-20889		SampType:	LCS		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSW		Batch ID:	20889		RunNo:	28422			
Prep Date:	8/20/2015		Analysis Date:	8/24/2015		SeqNo:	858875		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.0	14.9	111			
Surr: Phenol-d5	130		200.0		66.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.3	15.7	154			
Surr: Nitrobenzene-d5	68		100.0		67.5	47.8	106			
Surr: 2-Fluorobiphenyl	68		100.0		67.5	21.3	123			
Surr: 4-Terphenyl-d14	55		100.0		55.4	14.3	135			

Sample ID	lcsd-20889		SampType:	LCSD		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSS02		Batch ID:	20889		RunNo:	28422			
Prep Date:	8/20/2015		Analysis Date:	8/24/2015		SeqNo:	858876		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	150		200.0		77.4	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		81.4	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	82		100.0		82.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	21.3	123	0	0	
Surr: 4-Terphenyl-d14	62		100.0		61.7	14.3	135	0	0	

Sample ID	mb-20834		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	PBW		Batch ID:	20834		RunNo:	28422			
Prep Date:	8/17/2015		Analysis Date:	8/25/2015		SeqNo:	859164		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859164		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20834	RunNo:	28422					
Prep Date:	8/17/2015	Analysis Date:	8/25/2015	SeqNo:	859164	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	170		200.0		83.1	14.9	111			
Surr: Phenol-d5	170		200.0		85.4	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		98.2	15.7	154			
Surr: Nitrobenzene-d5	91		100.0		91.2	47.8	106			
Surr: 2-Fluorobiphenyl	92		100.0		91.9	21.3	123			
Surr: 4-Terphenyl-d14	140		100.0		141	14.3	135			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	Ics-20834		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859165		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	10	100.0	0	81.3	47.8	99.7			
4-Chloro-3-methylphenol	170	10	200.0	0	84.8	58.1	103			
2-Chlorophenol	160	10	200.0	0	82.1	49.5	96.8			
1,4-Dichlorobenzene	87	10	100.0	0	87.3	40.4	89.4			
2,4-Dinitrotoluene	62	10	100.0	0	62.4	38.6	91.3			
N-Nitrosodi-n-propylamine	81	10	100.0	0	81.4	53.9	95.6			
4-Nitrophenol	170	10	200.0	0	86.1	26.4	108			
Pentachlorophenol	170	20	200.0	0	83.0	36.5	86.6			
Phenol	160	10	200.0	0	78.1	29.3	108			
Pyrene	130	10	100.0	0	132	45.7	100			S
1,2,4-Trichlorobenzene	93	10	100.0	0	92.9	39.3	94.5			
Surr: 2-Fluorophenol	150		200.0		77.2	14.9	111			
Surr: Phenol-d5	160		200.0		81.5	11.3	108			
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	15.7	154			
Surr: Nitrobenzene-d5	84		100.0		83.8	47.8	106			
Surr: 2-Fluorobiphenyl	84		100.0		83.6	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		113	14.3	135			

Sample ID	Icsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	82	10	100.0	0	82.1	47.8	99.7	0.980	28.2	
4-Chloro-3-methylphenol	180	10	200.0	0	88.7	58.1	103	4.48	24.4	
2-Chlorophenol	180	10	200.0	0	88.0	49.5	96.8	6.93	28.1	
1,4-Dichlorobenzene	89	10	100.0	0	89.2	40.4	89.4	2.15	31.2	
2,4-Dinitrotoluene	63	10	100.0	0	62.9	38.6	91.3	0.862	44.4	
N-Nitrosodi-n-propylamine	91	10	100.0	0	90.6	53.9	95.6	10.7	24.2	
4-Nitrophenol	150	10	200.0	0	77.1	26.4	108	11.0	36.6	
Pentachlorophenol	160	20	200.0	0	79.2	36.5	86.6	4.59	29.5	
Phenol	170	10	200.0	0	84.2	29.3	108	7.55	30	
Pyrene	130	10	100.0	0	127	45.7	100	3.20	31	S
1,2,4-Trichlorobenzene	98	10	100.0	0	98.2	39.3	94.5	5.57	24	S
Surr: 2-Fluorophenol	160		200.0		79.0	14.9	111	0	0	
Surr: Phenol-d5	170		200.0		83.0	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	190		200.0		97.3	15.7	154	0	0	
Surr: Nitrobenzene-d5	84		100.0		84.2	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	87		100.0		86.9	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	lcsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	100		100.0		104	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508656

09-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853532	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.8		10.00		97.7	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R28257	RunNo:	28257					
Prep Date:		Analysis Date:	8/17/2015	SeqNo:	853533	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	80.6	122			
Surr: BFB	10		10.00		103	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1508656**

RcptNo: **1**

Received by/date:

CS

08/13/15

Logged By: **Ashley Gallegos**

8/13/2015 3:30:00 PM

Completed By: **Ashley Gallegos**

8/13/2015 5:51:44 PM

Reviewed By:

CS/mg

08/14/15

Chain of Custody

1. Custody seals intact on sample bottles?
2. Is Chain of Custody complete?
3. How was the sample delivered?

Yes ☒

No ☐

Not Present ☐

Yes ☒

No ☐

Not Present ☐

Courier

Log In

4. Was an attempt made to cool the samples?
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?
6. Sample(s) in proper container(s)?
7. Sufficient sample volume for indicated test(s)?
8. Are samples (except VOA and ONG) properly preserved?
9. Was preservative added to bottles?
10. VOA vials have zero headspace?
11. Were any sample containers received broken?
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody?
14. Is it clear what analyses were requested?
15. Were all holding times able to be met?
(If no, notify customer for authorization.)

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☒

Yes ☒

No ☒

Yes ☒

No ☒

Yes ☐

No ☒

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

CS 08/14/15

CS 08/14/15
Samples 9, 10, 13
(8260 vials) have but

of preserved
bottles checked
for pH: 27/1
(<2 or >12 unless noted)

Adjusted? YES

Checked by: CS/mg

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks: For metals analysis, added 0.4 ml HNO_3 to -002D and -003D; added 1 ml HNO_3 to -010E and -011E for acceptable pH. Held in Log-In for 24 hours prior to analysis.
18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Added 1ml HNO_3 to -010E and -011E for acceptable pH.
Held in Log-In for 24 hours after preservation time 08/14/15



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 08, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3rd Quarter/Annual-OW Wells

OrderNo.: 1508658

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 8/13/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 7:00:00 AM

Lab ID: 1508658-001

Matrix:

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Toluene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Naphthalene	ND	2.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Acetone	ND	10		µg/L	1	8/14/2015 5:12:44 PM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Bromoform	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Bromomethane	ND	3.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
2-Butanone	ND	10		µg/L	1	8/14/2015 5:12:44 PM	R28204
Carbon disulfide	ND	10		µg/L	1	8/14/2015 5:12:44 PM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Chloroethane	ND	2.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Chloroform	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Chloromethane	ND	3.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/14/2015 5:12:44 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 7:00:00 AM

Lab ID: 1508658-001

Matrix:

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
2-Hexanone	ND	10		µg/L	1	8/14/2015 5:12:44 PM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/14/2015 5:12:44 PM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Styrene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/14/2015 5:12:44 PM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/14/2015 5:12:44 PM	R28204
Surr: 1,2-Dichloroethane-d4	107	70-130		%REC	1	8/14/2015 5:12:44 PM	R28204
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	8/14/2015 5:12:44 PM	R28204
Surr: Dibromofluoromethane	120	70-130		%REC	1	8/14/2015 5:12:44 PM	R28204
Surr: Toluene-d8	100	70-130		%REC	1	8/14/2015 5:12:44 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 9:30:00 AM

Lab ID: 1508658-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 7:55:14 PM	G28456
Lead	0.0072	0.0025		mg/L	5	8/25/2015 7:55:14 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 7:55:14 PM	G28456
Uranium	0.042	0.0025	*	mg/L	5	8/25/2015 7:55:14 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.29	0.10		mg/L	1	8/18/2015 7:16:52 PM	R28321
Chloride	68	10		mg/L	20	8/18/2015 7:29:16 PM	R28321
Bromide	0.25	0.10		mg/L	1	8/18/2015 7:16:52 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 7:16:52 PM	R28321
Sulfate	160	10		mg/L	20	8/18/2015 7:29:16 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 2:31:14 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	9/2/2015 6:30:21 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 6:30:21 PM	A28620
Calcium	7.7	1.0		mg/L	1	9/2/2015 6:30:21 PM	A28620
Chromium	0.042	0.0060		mg/L	1	9/2/2015 6:30:21 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 6:30:21 PM	A28620
Iron	11	0.40	*	mg/L	20	9/3/2015 2:09:53 PM	A28647
Magnesium	1.7	1.0		mg/L	1	9/2/2015 6:30:21 PM	A28620
Manganese	0.13	0.0020	*	mg/L	1	9/2/2015 6:30:21 PM	A28620
Potassium	1.2	1.0		mg/L	1	9/2/2015 6:30:21 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 6:30:21 PM	A28620
Sodium	320	5.0		mg/L	5	9/2/2015 6:32:09 PM	A28620
Zinc	0.028	0.010		mg/L	1	9/2/2015 6:30:21 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.1	0.010	*	mg/L	5	8/31/2015 6:28:56 PM	20947
Cadmium	ND	0.010		mg/L	5	8/31/2015 6:28:56 PM	20947
Chromium	0.51	0.030	*	mg/L	5	8/31/2015 6:28:56 PM	20947
Copper	0.048	0.030		mg/L	5	8/31/2015 6:28:56 PM	20947
Iron	140	4.0	*	mg/L	200	8/31/2015 6:40:15 PM	20947
Manganese	6.7	0.020	*	mg/L	10	8/27/2015 12:54:53 PM	21000
Silver	ND	0.025		mg/L	5	8/31/2015 6:28:56 PM	20947
Zinc	0.65	0.050		mg/L	5	8/31/2015 6:28:56 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.036	0.010	*	mg/L	10	8/26/2015 7:07:39 PM	20947
Lead	0.25	0.0050	*	mg/L	10	8/26/2015 7:07:39 PM	20947
Selenium	ND	0.010		mg/L	10	8/26/2015 7:07:39 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 9:30:00 AM

Lab ID: 1508658-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.098	0.0050	*	mg/L	10	8/26/2015 7:07:39 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:06:03 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	8/14/2015 5:40:24 PM	R28204
Surr: BFB	100	70-130		%REC	2	8/14/2015 5:40:24 PM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 3:32:47 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 3:32:47 PM	20791
Surr: DNOP	95.9	72-136		%REC	1	8/14/2015 3:32:47 PM	20791
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Aniline	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 2:18:23 PM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 9:30:00 AM

Lab ID: 1508658-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 2:18:23 PM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 2:18:23 PM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 2:18:23 PM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Nitrobenzene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 2:18:23 PM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 9:30:00 AM

Lab ID: 1508658-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:18:23 PM	20834
Surr: 2-Fluorophenol	31.8	14.9-111		%REC	1	8/25/2015 2:18:23 PM	20834
Surr: Phenol-d5	30.5	11.3-108		%REC	1	8/25/2015 2:18:23 PM	20834
Surr: 2,4,6-Tribromophenol	42.0	15.7-154		%REC	1	8/25/2015 2:18:23 PM	20834
Surr: Nitrobenzene-d5	37.8	47.8-106	S	%REC	1	8/25/2015 2:18:23 PM	20834
Surr: 2-Fluorobiphenyl	38.9	21.3-123		%REC	1	8/25/2015 2:18:23 PM	20834
Surr: 4-Terphenyl-d14	54.6	14.3-135		%REC	1	8/25/2015 2:18:23 PM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Toluene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Ethylbenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Naphthalene	ND	4.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1-Methylnaphthalene	ND	8.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
2-Methylnaphthalene	ND	8.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Acetone	ND	20	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Bromobenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Bromodichloromethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Bromoform	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Bromomethane	ND	6.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
2-Butanone	ND	20	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Carbon disulfide	ND	20	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Carbon Tetrachloride	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Chlorobenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Chloroethane	ND	4.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Chloroform	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Chloromethane	ND	6.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
2-Chlorotoluene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
4-Chlorotoluene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
cis-1,2-DCE	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 9:30:00 AM

Lab ID: 1508658-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Dibromochloromethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Dibromomethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,1-Dichloroethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,1-Dichloroethene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2-Dichloropropane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,3-Dichloropropane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
2,2-Dichloropropane	ND	4.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,1-Dichloropropene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Hexachlorobutadiene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
2-Hexanone	ND	20	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Isopropylbenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
4-Isopropyltoluene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
4-Methyl-2-pentanone	ND	20	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Methylene Chloride	ND	6.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
n-Butylbenzene	ND	6.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
n-Propylbenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
sec-Butylbenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Styrene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
tert-Butylbenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
trans-1,2-DCE	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Trichlorofluoromethane	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Vinyl chloride	ND	2.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204
Xylenes, Total	ND	3.0	D	µg/L	2	8/14/2015 5:40:24 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 9:30:00 AM

Lab ID: 1508658-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	102	70-130	D	%REC	2	8/14/2015 5:40:24 PM	R28204
Surr: 4-Bromofluorobenzene	103	70-130	D	%REC	2	8/14/2015 5:40:24 PM	R28204
Surr: Dibromofluoromethane	115	70-130	D	%REC	2	8/14/2015 5:40:24 PM	R28204
Surr: Toluene-d8	97.4	70-130	D	%REC	2	8/14/2015 5:40:24 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 10:25:00 AM

Lab ID: 1508658-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 8:04:24 PM	G28456
Lead	ND	0.0025		mg/L	5	8/25/2015 8:04:24 PM	G28456
Selenium	0.013	0.0050		mg/L	5	8/25/2015 8:04:24 PM	G28456
Uranium	0.056	0.0025	*	mg/L	5	8/25/2015 8:04:24 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.10		mg/L	1	8/18/2015 7:41:41 PM	R28321
Chloride	1900	100		mg/L	200	8/26/2015 7:47:25 PM	R28495
Bromide	2.7	2.0		mg/L	20	8/18/2015 7:54:06 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 7:41:41 PM	R28321
Sulfate	240	10		mg/L	20	8/18/2015 7:54:06 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 2:43:39 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.066	0.0020		mg/L	1	9/2/2015 6:33:56 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 6:33:56 PM	A28620
Calcium	110	5.0		mg/L	5	9/2/2015 6:35:53 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 6:33:56 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 6:33:56 PM	A28620
Iron	ND	0.020		mg/L	1	9/2/2015 6:33:56 PM	A28620
Magnesium	18	1.0		mg/L	1	9/2/2015 6:33:56 PM	A28620
Manganese	0.10	0.0020	*	mg/L	1	9/2/2015 6:33:56 PM	A28620
Potassium	1.5	1.0		mg/L	1	9/2/2015 6:33:56 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 6:33:56 PM	A28620
Sodium	720	10		mg/L	10	9/3/2015 2:17:24 PM	A28647
Zinc	ND	0.010		mg/L	1	9/2/2015 6:33:56 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.11	0.0020		mg/L	1	8/25/2015 6:36:08 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:44:04 PM	20947
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:44:04 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 6:36:08 PM	20947
Iron	0.038	0.020		mg/L	1	8/25/2015 6:36:08 PM	20947
Manganese	0.33	0.0020	*	mg/L	1	8/27/2015 12:56:36 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 6:44:04 PM	20947
Zinc	0.011	0.010		mg/L	1	8/25/2015 6:36:08 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/26/2015 7:10:39 PM	20947
Lead	ND	0.00050		mg/L	1	8/26/2015 5:43:11 PM	20947
Selenium	0.011	0.0050		mg/L	5	8/26/2015 7:10:39 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 10:25:00 AM

Lab ID: 1508658-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.064	0.0025	*	mg/L	5	8/26/2015 7:10:39 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:12:14 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.064	0.050		mg/L	1	8/14/2015 7:03:18 PM	R28204
Surr: BFB	98.8	70-130		%REC	1	8/14/2015 7:03:18 PM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 3:54:28 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 3:54:28 PM	20791
Surr: DNOP	101	72-136		%REC	1	8/14/2015 3:54:28 PM	20791
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Toluene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Methyl tert-butyl ether (MTBE)	58	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Naphthalene	ND	2.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Acetone	ND	10		µg/L	1	8/14/2015 7:03:18 PM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Bromoform	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Bromomethane	ND	3.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
2-Butanone	ND	10		µg/L	1	8/14/2015 7:03:18 PM	R28204
Carbon disulfide	ND	10		µg/L	1	8/14/2015 7:03:18 PM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Chloroethane	ND	2.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Chloroform	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Chloromethane	ND	3.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 10:25:00 AM

Lab ID: 1508658-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,1-Dichloroethane	1.1	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
2-Hexanone	ND	10		µg/L	1	8/14/2015 7:03:18 PM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/14/2015 7:03:18 PM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Styrene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/14/2015 7:03:18 PM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/14/2015 7:03:18 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 10:25:00 AM

Lab ID: 1508658-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	8/14/2015 7:03:18 PM	R28204
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	8/14/2015 7:03:18 PM	R28204
Surr: Dibromofluoromethane	110	70-130		%REC	1	8/14/2015 7:03:18 PM	R28204
Surr: Toluene-d8	97.3	70-130		%REC	1	8/14/2015 7:03:18 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:20:00 PM

Lab ID: 1508658-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 8:07:27 PM	G28456
Lead	ND	0.0025		mg/L	5	8/25/2015 8:07:27 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 8:07:27 PM	G28456
Uranium	ND	0.0025		mg/L	5	8/25/2015 8:07:27 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.3	0.10		mg/L	1	8/18/2015 8:06:31 PM	R28321
Chloride	36	10		mg/L	20	8/18/2015 8:18:56 PM	R28321
Bromide	0.12	0.10		mg/L	1	8/18/2015 8:06:31 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 8:06:31 PM	R28321
Sulfate	340	10		mg/L	20	8/18/2015 8:18:56 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 2:56:03 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.031	0.0020		mg/L	1	9/2/2015 6:43:20 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 6:43:20 PM	A28620
Calcium	3.8	1.0		mg/L	1	9/2/2015 6:43:20 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 6:43:20 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 6:43:20 PM	A28620
Iron	0.13	0.020		mg/L	1	9/2/2015 6:43:20 PM	A28620
Magnesium	ND	1.0		mg/L	1	9/2/2015 6:43:20 PM	A28620
Manganese	0.019	0.0020		mg/L	1	9/2/2015 6:43:20 PM	A28620
Potassium	1.0	1.0		mg/L	1	9/2/2015 6:43:20 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 6:43:20 PM	A28620
Sodium	360	5.0		mg/L	5	9/2/2015 6:45:21 PM	A28620
Zinc	ND	0.010		mg/L	1	9/2/2015 6:43:20 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.039	0.0020		mg/L	1	8/25/2015 6:38:03 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:46:02 PM	20947
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:46:02 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 6:38:03 PM	20947
Iron	0.81	0.020	*	mg/L	1	8/25/2015 6:38:03 PM	20947
Manganese	0.028	0.0020		mg/L	1	8/27/2015 12:58:35 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 6:46:02 PM	20947
Zinc	0.015	0.010		mg/L	1	8/25/2015 6:38:03 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/26/2015 5:46:11 PM	20947
Lead	0.00051	0.00050		mg/L	1	8/26/2015 5:46:11 PM	20947
Selenium	ND	0.0010		mg/L	1	8/26/2015 5:46:11 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:20:00 PM

Lab ID: 1508658-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0018	0.00050		mg/L	1	8/26/2015 5:46:11 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:14:18 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/14/2015 8:25:57 PM	R28204
Surr: BFB	98.6	70-130		%REC	1	8/14/2015 8:25:57 PM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 4:16:00 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 4:16:00 PM	20791
Surr: DNOP	95.1	72-136		%REC	1	8/14/2015 4:16:00 PM	20791
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Toluene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Naphthalene	ND	2.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Acetone	ND	10		µg/L	1	8/14/2015 8:25:57 PM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Bromoform	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Bromomethane	ND	3.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
2-Butanone	ND	10		µg/L	1	8/14/2015 8:25:57 PM	R28204
Carbon disulfide	ND	10		µg/L	1	8/14/2015 8:25:57 PM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Chloroethane	ND	2.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Chloroform	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Chloromethane	ND	3.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:20:00 PM

Lab ID: 1508658-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
2-Hexanone	ND	10		µg/L	1	8/14/2015 8:25:57 PM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/14/2015 8:25:57 PM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Styrene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/14/2015 8:25:57 PM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/14/2015 8:25:57 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:20:00 PM

Lab ID: 1508658-004

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	8/14/2015 8:25:57 PM	R28204
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	8/14/2015 8:25:57 PM	R28204
Surr: Dibromofluoromethane	115	70-130		%REC	1	8/14/2015 8:25:57 PM	R28204
Surr: Toluene-d8	98.8	70-130		%REC	1	8/14/2015 8:25:57 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:40:00 PM

Lab ID: 1508658-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0053	0.0050		mg/L	5	8/25/2015 8:16:41 PM	G28456
Lead	ND	0.0025		mg/L	5	8/25/2015 8:16:41 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 8:16:41 PM	G28456
Uranium	ND	0.0025		mg/L	5	8/25/2015 8:16:41 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.3	0.10		mg/L	1	8/18/2015 8:31:20 PM	R28321
Chloride	31	10		mg/L	20	8/18/2015 8:43:44 PM	R28321
Bromide	0.18	0.10		mg/L	1	8/18/2015 8:31:20 PM	R28321
Phosphorus, Orthophosphate (As P)	1.1	0.50	H	mg/L	1	8/18/2015 8:31:20 PM	R28321
Sulfate	46	10		mg/L	20	8/18/2015 8:43:44 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 3:08:28 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	9/2/2015 6:47:10 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 6:47:10 PM	A28620
Calcium	8.4	1.0		mg/L	1	9/2/2015 6:47:10 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 6:47:10 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 6:47:10 PM	A28620
Iron	0.40	0.020	*	mg/L	1	9/2/2015 6:47:10 PM	A28620
Magnesium	2.7	1.0		mg/L	1	9/2/2015 6:47:10 PM	A28620
Manganese	0.11	0.0020	*	mg/L	1	9/2/2015 6:47:10 PM	A28620
Potassium	ND	1.0		mg/L	1	9/2/2015 6:47:10 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 6:47:10 PM	A28620
Sodium	390	5.0		mg/L	5	9/2/2015 6:49:13 PM	A28620
Zinc	ND	0.010		mg/L	1	9/2/2015 6:47:10 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.11	0.0020		mg/L	1	8/25/2015 6:40:02 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:48:09 PM	20947
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:48:09 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 6:40:02 PM	20947
Iron	0.51	0.020	*	mg/L	1	8/25/2015 6:40:02 PM	20947
Manganese	0.11	0.0020	*	mg/L	1	8/27/2015 1:00:36 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 6:48:09 PM	20947
Zinc	ND	0.010		mg/L	1	8/25/2015 6:40:02 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0048	0.0010		mg/L	1	8/26/2015 5:55:17 PM	20947
Lead	ND	0.00050		mg/L	1	8/26/2015 5:55:17 PM	20947
Selenium	ND	0.0010		mg/L	1	8/26/2015 5:55:17 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:40:00 PM

Lab ID: 1508658-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.00050		mg/L	1	8/26/2015 5:55:17 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:20:37 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/14/2015 8:53:27 PM	R28204
Surr: BFB	97.4	70-130		%REC	1	8/14/2015 8:53:27 PM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 4:37:35 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 4:37:35 PM	20791
Surr: DNOP	100	72-136		%REC	1	8/14/2015 4:37:35 PM	20791
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Toluene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Naphthalene	ND	2.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Acetone	ND	10		µg/L	1	8/14/2015 8:53:27 PM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Bromoform	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Bromomethane	ND	3.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
2-Butanone	ND	10		µg/L	1	8/14/2015 8:53:27 PM	R28204
Carbon disulfide	ND	10		µg/L	1	8/14/2015 8:53:27 PM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Chloroethane	ND	2.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Chloroform	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Chloromethane	ND	3.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:40:00 PM

Lab ID: 1508658-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
2-Hexanone	ND	10		µg/L	1	8/14/2015 8:53:27 PM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/14/2015 8:53:27 PM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Styrene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/14/2015 8:53:27 PM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/14/2015 8:53:27 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 12:40:00 PM

Lab ID: 1508658-005

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	8/14/2015 8:53:27 PM	R28204
Surr: 4-Bromofluorobenzene	113	70-130		%REC	1	8/14/2015 8:53:27 PM	R28204
Surr: Dibromofluoromethane	116	70-130		%REC	1	8/14/2015 8:53:27 PM	R28204
Surr: Toluene-d8	95.0	70-130		%REC	1	8/14/2015 8:53:27 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 1:35:00 PM

Lab ID: 1508658-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 8:19:44 PM	G28456
Lead	ND	0.0025		mg/L	5	8/25/2015 8:19:44 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 8:19:44 PM	G28456
Uranium	0.0054	0.0025		mg/L	5	8/25/2015 8:19:44 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.9	0.10		mg/L	1	8/18/2015 9:20:57 PM	R28321
Chloride	42	10		mg/L	20	8/18/2015 9:33:22 PM	R28321
Bromide	0.11	0.10		mg/L	1	8/18/2015 9:20:57 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 9:20:57 PM	R28321
Sulfate	270	10		mg/L	20	8/18/2015 9:33:22 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 3:20:52 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	9/2/2015 6:51:05 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 6:51:05 PM	A28620
Calcium	2.1	1.0		mg/L	1	9/2/2015 6:51:05 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 6:51:05 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 6:51:05 PM	A28620
Iron	ND	0.020		mg/L	1	9/2/2015 6:51:05 PM	A28620
Magnesium	ND	1.0		mg/L	1	9/2/2015 6:51:05 PM	A28620
Manganese	ND	0.0020		mg/L	1	9/2/2015 6:51:05 PM	A28620
Potassium	ND	1.0		mg/L	1	9/2/2015 6:51:05 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 6:51:05 PM	A28620
Sodium	310	5.0		mg/L	5	9/2/2015 6:53:07 PM	A28620
Zinc	ND	0.010		mg/L	1	9/2/2015 6:51:05 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.024	0.0020		mg/L	1	8/25/2015 6:42:00 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:50:11 PM	20947
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:50:11 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 6:42:00 PM	20947
Iron	0.51	0.020	*	mg/L	1	8/25/2015 6:42:00 PM	20947
Manganese	0.014	0.0020		mg/L	1	8/27/2015 1:02:36 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 6:50:11 PM	20947
Zinc	ND	0.010		mg/L	1	8/25/2015 6:42:00 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/26/2015 5:58:17 PM	20947
Lead	ND	0.00050		mg/L	1	8/26/2015 5:58:17 PM	20947
Selenium	ND	0.0010		mg/L	1	8/26/2015 5:58:17 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 1:35:00 PM

Lab ID: 1508658-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0056	0.00050		mg/L	1	8/26/2015 5:58:17 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:22:42 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/14/2015 9:21:00 PM	R28204
Surr: BFB	101	70-130		%REC	1	8/14/2015 9:21:00 PM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 4:59:05 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 4:59:05 PM	20791
Surr: DNOP	101	72-136		%REC	1	8/14/2015 4:59:05 PM	20791
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Toluene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Naphthalene	ND	2.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Acetone	ND	10		µg/L	1	8/14/2015 9:21:00 PM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Bromoform	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Bromomethane	ND	3.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
2-Butanone	ND	10		µg/L	1	8/14/2015 9:21:00 PM	R28204
Carbon disulfide	ND	10		µg/L	1	8/14/2015 9:21:00 PM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Chloroethane	ND	2.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Chloroform	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Chloromethane	ND	3.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 1:35:00 PM

Lab ID: 1508658-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
2-Hexanone	ND	10		µg/L	1	8/14/2015 9:21:00 PM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/14/2015 9:21:00 PM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Styrene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/14/2015 9:21:00 PM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/14/2015 9:21:00 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 1:35:00 PM

Lab ID: 1508658-006

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	8/14/2015 9:21:00 PM	R28204
Surr: 4-Bromofluorobenzene	113	70-130		%REC	1	8/14/2015 9:21:00 PM	R28204
Surr: Dibromofluoromethane	114	70-130		%REC	1	8/14/2015 9:21:00 PM	R28204
Surr: Toluene-d8	102	70-130		%REC	1	8/14/2015 9:21:00 PM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:10:00 PM

Lab ID: 1508658-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0079	0.0050		mg/L	5	8/25/2015 8:22:48 PM	G28456
Lead	ND	0.0025		mg/L	5	8/25/2015 8:22:48 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 8:22:48 PM	G28456
Uranium	ND	0.0025		mg/L	5	8/25/2015 8:22:48 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.1	0.10		mg/L	1	8/18/2015 9:45:47 PM	R28321
Chloride	36	10		mg/L	20	8/18/2015 9:58:11 PM	R28321
Bromide	0.20	0.10		mg/L	1	8/18/2015 9:45:47 PM	R28321
Phosphorus, Orthophosphate (As P)	0.72	0.50	H	mg/L	1	8/18/2015 9:45:47 PM	R28321
Sulfate	7.3	0.50		mg/L	1	8/18/2015 9:45:47 PM	R28321
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/19/2015 3:33:17 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.15	0.0020		mg/L	1	9/2/2015 6:54:57 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 6:54:57 PM	A28620
Calcium	9.2	1.0		mg/L	1	9/2/2015 6:54:57 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 6:54:57 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 6:54:57 PM	A28620
Iron	0.37	0.020	*	mg/L	1	9/2/2015 6:54:57 PM	A28620
Magnesium	3.3	1.0		mg/L	1	9/2/2015 6:54:57 PM	A28620
Manganese	0.14	0.0020	*	mg/L	1	9/2/2015 6:54:57 PM	A28620
Potassium	ND	1.0		mg/L	1	9/2/2015 6:54:57 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 6:54:57 PM	A28620
Sodium	350	5.0		mg/L	5	9/2/2015 6:57:00 PM	A28620
Zinc	0.016	0.010		mg/L	1	9/2/2015 6:54:57 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.16	0.0020		mg/L	1	8/25/2015 6:43:58 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:52:14 PM	20947
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:52:14 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 6:43:58 PM	20947
Iron	0.50	0.020	*	mg/L	1	8/25/2015 6:43:58 PM	20947
Manganese	0.14	0.0020	*	mg/L	1	8/27/2015 1:10:18 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 6:52:14 PM	20947
Zinc	ND	0.010		mg/L	1	8/25/2015 6:43:58 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0073	0.0010		mg/L	1	8/26/2015 6:01:17 PM	20947
Lead	ND	0.00050		mg/L	1	8/26/2015 6:01:17 PM	20947
Selenium	ND	0.0010		mg/L	1	8/26/2015 6:01:17 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:10:00 PM

Lab ID: 1508658-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.00050		mg/L	1	8/26/2015 6:01:17 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:24:48 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/15/2015 12:33:15 AM	R28204
Surr: BFB	101	70-130		%REC	1	8/15/2015 12:33:15 AM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 5:20:43 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 5:20:43 PM	20791
Surr: DNOP	101	72-136		%REC	1	8/14/2015 5:20:43 PM	20791
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Toluene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Naphthalene	ND	2.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Acetone	ND	10		µg/L	1	8/15/2015 12:33:15 AM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Bromoform	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Bromomethane	ND	3.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
2-Butanone	ND	10		µg/L	1	8/15/2015 12:33:15 AM	R28204
Carbon disulfide	ND	10		µg/L	1	8/15/2015 12:33:15 AM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Chloroethane	ND	2.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Chloroform	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Chloromethane	ND	3.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:10:00 PM

Lab ID: 1508658-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
2-Hexanone	ND	10		µg/L	1	8/15/2015 12:33:15 AM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/15/2015 12:33:15 AM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Styrene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/15/2015 12:33:15 AM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/15/2015 12:33:15 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:10:00 PM

Lab ID: 1508658-007

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%REC	1	8/15/2015 12:33:15 AM	R28204
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	8/15/2015 12:33:15 AM	R28204
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/15/2015 12:33:15 AM	R28204
Surr: Toluene-d8	96.2	70-130		%REC	1	8/15/2015 12:33:15 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:40:00 PM

Lab ID: 1508658-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 8:25:51 PM	G28456
Lead	0.0029	0.0025		mg/L	5	8/25/2015 8:25:51 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 8:25:51 PM	G28456
Uranium	0.012	0.0025		mg/L	5	8/25/2015 8:25:51 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.8	0.10		mg/L	1	8/18/2015 10:35:25 PM	R28321
Chloride	29	10		mg/L	20	8/18/2015 10:47:50 PM	R28321
Bromide	0.14	0.10		mg/L	1	8/18/2015 10:35:25 PM	R28321
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/18/2015 10:35:25 PM	R28321
Sulfate	160	10		mg/L	20	8/18/2015 10:47:50 PM	R28321
Nitrate+Nitrite as N	1.5	1.0		mg/L	5	8/19/2015 3:45:41 AM	R28321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.050	0.0020		mg/L	1	9/2/2015 6:58:55 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 6:58:55 PM	A28620
Calcium	14	1.0		mg/L	1	9/2/2015 6:58:55 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 6:58:55 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 6:58:55 PM	A28620
Iron	0.60	0.020	*	mg/L	1	9/2/2015 6:58:55 PM	A28620
Magnesium	3.6	1.0		mg/L	1	9/2/2015 6:58:55 PM	A28620
Manganese	0.16	0.0020	*	mg/L	1	9/2/2015 6:58:55 PM	A28620
Potassium	1.5	1.0		mg/L	1	9/2/2015 6:58:55 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 6:58:55 PM	A28620
Sodium	600	10		mg/L	10	9/3/2015 2:19:25 PM	A28647
Zinc	ND	0.010		mg/L	1	9/2/2015 6:58:55 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	8/25/2015 6:45:56 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:54:20 PM	20947
Chromium	ND	0.0060		mg/L	1	8/31/2015 6:54:20 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 6:45:56 PM	20947
Iron	2.5	0.10	*	mg/L	5	8/31/2015 6:56:11 PM	20947
Manganese	0.21	0.0020	*	mg/L	1	8/27/2015 1:12:20 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 6:54:20 PM	20947
Zinc	0.012	0.010		mg/L	1	8/25/2015 6:45:56 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0013	0.0010		mg/L	1	8/26/2015 6:04:17 PM	20947
Lead	0.0012	0.00050		mg/L	1	8/26/2015 6:04:17 PM	20947
Selenium	0.0019	0.0010		mg/L	1	8/26/2015 6:04:17 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:40:00 PM

Lab ID: 1508658-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.013	0.00050		mg/L	1	8/26/2015 6:04:17 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:26:54 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/15/2015 1:00:45 AM	R28204
Surr: BFB	99.2	70-130		%REC	1	8/15/2015 1:00:45 AM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 5:42:17 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 5:42:17 PM	20791
Surr: DNOP	102	72-136		%REC	1	8/14/2015 5:42:17 PM	20791
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Toluene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Naphthalene	ND	2.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Acetone	ND	10		µg/L	1	8/15/2015 1:00:45 AM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Bromoform	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Bromomethane	ND	3.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
2-Butanone	ND	10		µg/L	1	8/15/2015 1:00:45 AM	R28204
Carbon disulfide	ND	10		µg/L	1	8/15/2015 1:00:45 AM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Chloroethane	ND	2.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Chloroform	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Chloromethane	ND	3.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:40:00 PM

Lab ID: 1508658-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
2-Hexanone	ND	10		µg/L	1	8/15/2015 1:00:45 AM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/15/2015 1:00:45 AM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Styrene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/15/2015 1:00:45 AM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/15/2015 1:00:45 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/12/2015 2:40:00 PM

Lab ID: 1508658-008

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/15/2015 1:00:45 AM	R28204
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	8/15/2015 1:00:45 AM	R28204
Surr: Dibromofluoromethane	113	70-130		%REC	1	8/15/2015 1:00:45 AM	R28204
Surr: Toluene-d8	95.9	70-130		%REC	1	8/15/2015 1:00:45 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508658-009

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/15/2015 1:28:15 AM	R28204
Surr: BFB	101	70-130		%REC	1	8/15/2015 1:28:15 AM	R28204
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Toluene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Naphthalene	ND	2.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Acetone	ND	10		µg/L	1	8/15/2015 1:28:15 AM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Bromoform	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Bromomethane	ND	3.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
2-Butanone	ND	10		µg/L	1	8/15/2015 1:28:15 AM	R28204
Carbon disulfide	ND	10		µg/L	1	8/15/2015 1:28:15 AM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Chloroethane	ND	2.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Chloroform	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Chloromethane	ND	3.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508658

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508658-009

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
2-Hexanone	ND	10		µg/L	1	8/15/2015 1:28:15 AM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/15/2015 1:28:15 AM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Styrene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/15/2015 1:28:15 AM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/15/2015 1:28:15 AM	R28204
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/15/2015 1:28:15 AM	R28204
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	8/15/2015 1:28:15 AM	R28204
Surr: Dibromofluoromethane	108	70-130		%REC	1	8/15/2015 1:28:15 AM	R28204
Surr: Toluene-d8	99.8	70-130		%REC	1	8/15/2015 1:28:15 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A28620	RunNo:	28620					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	865969	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A28620	RunNo:	28620					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	865973	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.0	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	96.1	85	115			
Copper	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.48	0.020	0.5000	0	95.5	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.47	0.0020	0.5000	0	93.9	85	115			
Potassium	50	1.0	50.00	0	99.5	85	115			
Silver	0.098	0.0050	0.1000	0	97.7	85	115			
Sodium	51	1.0	50.00	0	102	85	115			
Zinc	0.48	0.010	0.5000	0	96.9	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A28620	RunNo:	28620					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	865974	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	89.0	50	150			
Cadmium	0.0021	0.0020	0.002000	0	105	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Chromium	0.0067	0.0060	0.006000	0	112	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LLLCS	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID: A28620			RunNo: 28620					
Prep Date:	Analysis Date: 9/2/2015			SeqNo: 865974		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060	0.006000	0	75.8	50	150			
Iron	0.022	0.020	0.02000	0	111	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	ND	0.0020	0.002000	0	96.5	50	150			
Potassium	ND	1.0	0.5000	0	113	50	150			
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Sodium	ND	1.0	0.5000	0	106	50	150			
Zinc	ND	0.010	0.005000	0	113	50	150			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	PBW	Batch ID:	A28647		RunNo:	28647				
Prep Date:		Analysis Date:	9/3/2015		SeqNo:	867139		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867140		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	96.2	85	115			
Sodium	52	1.0	50.00	0	103	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867141		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020	0.02000	0	106	50	150			
Sodium	ND	1.0	0.5000	0	107	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20947		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859560		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-20947		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859561		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Copper	0.47	0.0060	0.5000	0	94.8	85	115			
Iron	0.52	0.020	0.5000	0	103	85	115			
Silver	0.094	0.0050	0.1000	0	93.6	85	115			
Zinc	0.48	0.010	0.5000	0	96.2	85	115			

Sample ID	LLLCS-20947		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859562		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	101	50	150			
Cadmium	ND	0.0020	0.002000	0	84.5	50	150			
Copper	ND	0.0060	0.006000	0	99.8	50	150			
Iron	0.022	0.020	0.02000	0	112	50	150			
Silver	ND	0.0050	0.005000	0	74.0	50	150			
Zinc	ND	0.010	0.005000	0	131	50	150			

Sample ID	MB-20947		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 20947		RunNo: 28465					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 860590		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS-20947			SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW			Batch ID:	20947		RunNo:	28465			
Prep Date:	8/24/2015			Analysis Date:	8/26/2015		SeqNo:	860591		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chromium	0.48	0.0060	0.5000	0	95.6	85	115				

Sample ID	LLLCS-20947		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 20947		RunNo: 28465					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 860592		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0066	0.0060	0.006000	0	109	50	150			

Sample ID	1508658-002GMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals						
Client ID:	OW-1		Batch ID: 20947		RunNo: 28565						
Prep Date:	8/24/2015		Analysis Date: 8/31/2015		SeqNo: 864262		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	2.4	0.010	0.5000	2.071	61.9	70	130			S	
Cadmium	0.47	0.010	0.5000	0	93.3	70	130				
Chromium	0.93	0.030	0.5000	0.5109	83.4	70	130				
Copper	0.52	0.030	0.5000	0.04765	93.7	70	130				
Silver	0.093	0.025	0.1000	0	93.0	70	130				
Zinc	1.1	0.050	0.5000	0.6524	82.9	70	130				

Sample ID	1508658-002GMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-1		Batch ID: 20947		RunNo: 28565					
Prep Date:	8/24/2015		Analysis Date: 8/31/2015		SeqNo: 864263		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	2.4	0.010	0.5000	2.071	63.0	70	130	0.233	20	S
Cadmium	0.47	0.010	0.5000	0	94.0	70	130	0.822	20	
Chromium	0.95	0.030	0.5000	0.5109	87.9	70	130	2.40	20	
Copper	0.51	0.030	0.5000	0.04765	92.3	70	130	1.31	20	
Silver	0.094	0.025	0.1000	0	94.1	70	130	1.12	20	
Zinc	1.1	0.050	0.5000	0.6524	91.0	70	130	3.71	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508658-002FMS		SampType: MS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	OW-1		Batch ID: G28456			RunNo: 28456				
Prep Date:			Analysis Date: 8/25/2015			SeqNo: 860050		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.001675	96.5	70	130			
Lead	0.065	0.0025	0.06250	0.007204	92.2	70	130			
Selenium	0.12	0.0050	0.1250	0.003877	94.3	70	130			
Uranium	0.099	0.0025	0.06250	0.04186	91.4	70	130			

Sample ID	1508658-002FMSD		SampType: MSD			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	OW-1		Batch ID: G28456			RunNo: 28456				
Prep Date:			Analysis Date: 8/25/2015			SeqNo: 860051		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.001675	96.9	70	130	0.408	20	
Lead	0.065	0.0025	0.06250	0.007204	91.7	70	130	0.517	20	
Selenium	0.12	0.0050	0.1250	0.003877	95.4	70	130	1.11	20	
Uranium	0.098	0.0025	0.06250	0.04186	90.0	70	130	0.862	20	

Sample ID	LCS		SampType: LCS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID: G28456			RunNo: 28456				
Prep Date:			Analysis Date: 8/25/2015			SeqNo: 860086		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.7	85	115			
Lead	0.011	0.00050	0.01250	0	91.9	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID	LLCS		SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: G28456			RunNo: 28456				
Prep Date:			Analysis Date: 8/25/2015			SeqNo: 860090		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	97.5	50	150			
Lead	0.00053	0.00050	0.0005000	0	105	50	150			
Selenium	0.0010	0.0010	0.001000	0	102	50	150			
Uranium	0.00050	0.00050	0.0005000	0	101	50	150			

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: G28456			RunNo: 28456				
Prep Date:			Analysis Date: 8/25/2015			SeqNo: 860094		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	G28456	RunNo:	28456					
Prep Date:		Analysis Date:	8/25/2015	SeqNo:	860094	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508658-008FMSDL			SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BW-2B		Batch ID:	20947		RunNo:	28478				
Prep Date:	8/24/2015		Analysis Date:	8/26/2015		SeqNo:	861341		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.024	0.0010	0.02500	0.001325	92.6	70	130	0.752	20		
Lead	0.015	0.00050	0.01250	0.001200	109	70	130	0.609	20		
Selenium	0.022	0.0010	0.02500	0.001894	80.7	70	130	2.45	20		
Uranium	0.027	0.00050	0.01250	0.01320	112	70	130	0.874	20		

Sample ID	1508658-008FMSLL			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BW-2B		Batch ID:	20947		RunNo:	28478				
Prep Date:	8/24/2015		Analysis Date:	8/26/2015		SeqNo:	861342		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.024	0.0010	0.02500	0.001325	91.8	70	130				
Lead	0.015	0.00050	0.01250	0.001200	108	70	130				
Selenium	0.022	0.0010	0.02500	0.001894	78.6	70	130				
Uranium	0.027	0.00050	0.01250	0.01320	114	70	130				

Sample ID	MB-20947	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 20947			RunNo: 28478					
Prep Date:	8/24/2015	Analysis Date: 8/26/2015			SeqNo: 861344		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-20947			SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW			Batch ID:	20947		RunNo:	28478			
Prep Date:	8/24/2015			Analysis Date:	8/26/2015		SeqNo:	861346		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115				
Lead	0.013	0.00050	0.01250	0	100	85	115				
Selenium	0.024	0.0010	0.02500	0	94.9	85	115				
Uranium	0.013	0.00050	0.01250	0	101	85	115				

Sample ID	MSLLCS-20947		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total						
Client ID:	BatchQC		Batch ID: 20947		RunNo: 28478						
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861348		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MSLLCS-20947		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 20947		RunNo: 28478					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861348		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	77.3	50	150			
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	ND	0.0010	0.001000	0	92.1	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20988		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 20988		RunNo: 28479					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 860844		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-20988		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 20988		RunNo: 28479					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 860845		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID	1508658-002GMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	OW-1		Batch ID: 20988		RunNo: 28479					
Prep Date:	8/26/2015		Analysis Date: 8/26/2015		SeqNo: 860850		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0.0001744	97.6	75	125			

Sample ID	1508658-002GMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	OW-1			Batch ID:	20988		RunNo:	28479			
Prep Date:	8/26/2015			Analysis Date:	8/26/2015		SeqNo:	860851		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0050	0.00020	0.005000	0.0001744	96.3	75	125	1.30	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854896		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854897		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	101	90	110			
Chloride	4.9	0.50	5.000	0	98.5	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	102	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854948		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28321		RunNo: 28321							
Prep Date:	Analysis Date: 8/18/2015		SeqNo: 854949		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Bromide	2.5	0.10	2.500	0	99.9	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28321		RunNo: 28321					
Prep Date:			Analysis Date: 8/18/2015		SeqNo: 854949		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0	99.8	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28495			RunNo: 28495					
Prep Date:		Analysis Date: 8/26/2015			SeqNo: 861647		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28495		RunNo: 28495					
Prep Date:			Analysis Date: 8/26/2015		SeqNo: 861648		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20791		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20791		RunNo: 28189					
Prep Date:	8/14/2015		Analysis Date: 8/14/2015		SeqNo: 852665		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.90		1.000		90.4	72	136			

Sample ID	LCS-20791		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20791		RunNo: 28189					
Prep Date:	8/14/2015		Analysis Date: 8/14/2015		SeqNo: 852666		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.4	1.0	5.000	0	89.0	60.1	156			
Surr: DNOP	0.44		0.5000		88.9	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28204			RunNo: 28204					
Prep Date:		Analysis Date: 8/14/2015			SeqNo: 852289	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R28204				RunNo: 28204				
Prep Date:		Analysis Date: 8/14/2015				SeqNo: 852289	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	2.5								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R28204				RunNo: 28204				
Prep Date:		Analysis Date: 8/14/2015				SeqNo: 852290	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	20	1.0	20.00	0	99.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R28204			RunNo: 28204						
Prep Date:	Analysis Date: 8/14/2015			SeqNo: 852290		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	12		10.00		116	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID 1508658-002a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: OW-1	Batch ID: R28204			RunNo: 28204						
Prep Date:	Analysis Date: 8/14/2015			SeqNo: 852293		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	45	2.0	40.00	0	113	70	130			D
Toluene	42	2.0	40.00	0	105	70	130			D
Chlorobenzene	42	2.0	40.00	0	106	70	130			D
1,1-Dichloroethene	44	2.0	40.00	0	110	70	130			D
Trichloroethene (TCE)	46	2.0	40.00	0	114	70	130			D
Surr: 1,2-Dichloroethane-d4	22		20.00		108	70	130			D
Surr: 4-Bromofluorobenzene	22		20.00		109	70	130			D
Surr: Dibromofluoromethane	24		20.00		119	70	130			D
Surr: Toluene-d8	19		20.00		96.5	70	130			D

Sample ID 1508658-002a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: OW-1	Batch ID: R28204			RunNo: 28204						
Prep Date:	Analysis Date: 8/14/2015			SeqNo: 852294		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	45	2.0	40.00	0	113	70	130	0.307	20	D
Toluene	43	2.0	40.00	0	107	70	130	2.34	20	D
Chlorobenzene	44	2.0	40.00	0	111	70	130	4.37	20	D
1,1-Dichloroethene	43	2.0	40.00	0	108	70	130	1.39	20	D
Trichloroethene (TCE)	44	2.0	40.00	0	110	70	130	3.68	20	D
Surr: 1,2-Dichloroethane-d4	22		20.00		109	70	130	0	0	D
Surr: 4-Bromofluorobenzene	22		20.00		108	70	130	0	0	D
Surr: Dibromofluoromethane	23		20.00		117	70	130	0	0	D
Surr: Toluene-d8	21		20.00		103	70	130	0	0	D

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28204	RunNo:	28204					
Prep Date:		Analysis Date:	8/15/2015	SeqNo:	852318	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R28204			RunNo: 28204						
Prep Date:	Analysis Date: 8/15/2015			SeqNo: 852318		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R28204			RunNo: 28204						
Prep Date:	Analysis Date: 8/14/2015			SeqNo: 852319		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R28204			RunNo: 28204					
Prep Date:		Analysis Date: 8/14/2015			SeqNo: 852319		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	113	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID mb-20889	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 20889			RunNo: 28422						
Prep Date: 8/20/2015	Analysis Date: 8/24/2015			SeqNo: 858874		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.3	14.9	111			
Surr: Phenol-d5	140		200.0		70.9	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		70.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		73.8	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.1	21.3	123			
Surr: 4-Terphenyl-d14	51		100.0		51.5	14.3	135			

Sample ID lcs-20889	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSW	Batch ID: 20889			RunNo: 28422						
Prep Date: 8/20/2015	Analysis Date: 8/24/2015			SeqNo: 858875		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.0	14.9	111			
Surr: Phenol-d5	130		200.0		66.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.3	15.7	154			
Surr: Nitrobenzene-d5	68		100.0		67.5	47.8	106			
Surr: 2-Fluorobiphenyl	68		100.0		67.5	21.3	123			
Surr: 4-Terphenyl-d14	55		100.0		55.4	14.3	135			

Sample ID lcsd-20889	SampType: LCSD			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSS02	Batch ID: 20889			RunNo: 28422						
Prep Date: 8/20/2015	Analysis Date: 8/24/2015			SeqNo: 858876		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	150		200.0		77.4	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		81.4	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	82		100.0		82.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	21.3	123	0	0	
Surr: 4-Terphenyl-d14	62		100.0		61.7	14.3	135	0	0	

Sample ID mb-20834	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 20834			RunNo: 28422						
Prep Date: 8/17/2015	Analysis Date: 8/25/2015			SeqNo: 859164		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859164		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20834	RunNo:	28422					
Prep Date:	8/17/2015	Analysis Date:	8/25/2015	SeqNo:	859164	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	170		200.0		83.1	14.9	111			
Surr: Phenol-d5	170		200.0		85.4	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		98.2	15.7	154			
Surr: Nitrobenzene-d5	91		100.0		91.2	47.8	106			
Surr: 2-Fluorobiphenyl	92		100.0		91.9	21.3	123			
Surr: 4-Terphenyl-d14	140		100.0		141	14.3	135			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	Ics-20834		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859165		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	10	100.0	0	81.3	47.8	99.7			
4-Chloro-3-methylphenol	170	10	200.0	0	84.8	58.1	103			
2-Chlorophenol	160	10	200.0	0	82.1	49.5	96.8			
1,4-Dichlorobenzene	87	10	100.0	0	87.3	40.4	89.4			
2,4-Dinitrotoluene	62	10	100.0	0	62.4	38.6	91.3			
N-Nitrosodi-n-propylamine	81	10	100.0	0	81.4	53.9	95.6			
4-Nitrophenol	170	10	200.0	0	86.1	26.4	108			
Pentachlorophenol	170	20	200.0	0	83.0	36.5	86.6			
Phenol	160	10	200.0	0	78.1	29.3	108			
Pyrene	130	10	100.0	0	132	45.7	100			S
1,2,4-Trichlorobenzene	93	10	100.0	0	92.9	39.3	94.5			
Surr: 2-Fluorophenol	150		200.0		77.2	14.9	111			
Surr: Phenol-d5	160		200.0		81.5	11.3	108			
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	15.7	154			
Surr: Nitrobenzene-d5	84		100.0		83.8	47.8	106			
Surr: 2-Fluorobiphenyl	84		100.0		83.6	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		113	14.3	135			

Sample ID	Icsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	82	10	100.0	0	82.1	47.8	99.7	0.980	28.2	
4-Chloro-3-methylphenol	180	10	200.0	0	88.7	58.1	103	4.48	24.4	
2-Chlorophenol	180	10	200.0	0	88.0	49.5	96.8	6.93	28.1	
1,4-Dichlorobenzene	89	10	100.0	0	89.2	40.4	89.4	2.15	31.2	
2,4-Dinitrotoluene	63	10	100.0	0	62.9	38.6	91.3	0.862	44.4	
N-Nitrosodi-n-propylamine	91	10	100.0	0	90.6	53.9	95.6	10.7	24.2	
4-Nitrophenol	150	10	200.0	0	77.1	26.4	108	11.0	36.6	
Pentachlorophenol	160	20	200.0	0	79.2	36.5	86.6	4.59	29.5	
Phenol	170	10	200.0	0	84.2	29.3	108	7.55	30	
Pyrene	130	10	100.0	0	127	45.7	100	3.20	31	S
1,2,4-Trichlorobenzene	98	10	100.0	0	98.2	39.3	94.5	5.57	24	S
Surr: 2-Fluorophenol	160		200.0		79.0	14.9	111	0	0	
Surr: Phenol-d5	170		200.0		83.0	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	190		200.0		97.3	15.7	154	0	0	
Surr: Nitrobenzene-d5	84		100.0		84.2	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	87		100.0		86.9	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	Icsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	100		100.0		104	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508658

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R28204		RunNo: 28204					
Prep Date:			Analysis Date: 8/15/2015		SeqNo: 852380		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.9		10.00		98.5	70	130			

Sample ID	2.5ug gro lcs		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R28204		RunNo: 28204					
Prep Date:			Analysis Date: 8/14/2015		SeqNo: 852385		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	102	80.6	122			
Surr: BFB	9.8		10.00		97.6	70	130			

Sample ID	1508658-003B MS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	OW-10		Batch ID: R28204		RunNo: 28204					
Prep Date:			Analysis Date: 8/14/2015		SeqNo: 852394		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.56	0.050	0.5000	0.06400	99.0	53.8	128			
Surr: BFB	10		10.00		101	70	130			

Sample ID	1508658-003B MSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	OW-10		Batch ID: R28204		RunNo: 28204					
Prep Date:			Analysis Date: 8/14/2015		SeqNo: 852395		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.56	0.050	0.5000	0.06400	98.9	53.8	128	0.0358	20	
Surr: BFB	10		10.00		104	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1508658**

RcptNo: 1

Received by/date:

CS

08/13/15

Logged By: **Ashley Gallegos**

8/13/2015 3:30:00 PM

Ag

Completed By: **Ashley Gallegos**

8/13/2015 6:18:52 PM

Ag

Reviewed By:

mgles

08/14/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☒

CS 08/14/15

9. Was preservative added to bottles?

Yes ☒

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

of preserved bottles checked for pH:

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

For metals analysis, added 1 ml HNO₃ to -008F for acceptable pH. Hel. in log in for 24 hours prior to analysis. CS 08/14/15

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client:	Western Refining Company	
GALLUP REFINERY		
Mailing Address:		
2 Giant Crossing Road, Gallup, NM 87301		
Phone #:	505-722-3833	
email or Fax#:	505-863-0930	
QA/QC Package:		
☐ Standard	☐ Level 4 (Full Validation)	
Accreditation:		
☐ NELAP		
☐ EDD (Type)		
Project Name:		
2015 3rd Quarter/Annual- OW Wells		
Project #:		
PO #20825207		
Project Manager:		
C. JOHNSON (cheryl.johnson@wnr.com)		
Sampler:		
On Ice:		☒ Yes ☐ No
Sample Temperature:		1.0°C

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

[illegible]

Remarks:

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
8/13/15	1155	<i>[Signature]</i>	<i>[Signature]</i>	8/13/15	1155
8-13-15	1530	<i>[Signature]</i>	<i>[Signature]</i>	8/13/15	1530

If necessary, samples submitted to Hal Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any subcontracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 08, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3rd Quarter/Annual-OW Wells

OrderNo.: 1508659

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/13/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 7:00:00 AM

Lab ID: 1508659-001

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Toluene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Naphthalene	ND	2.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Acetone	ND	10		µg/L	1	8/15/2015 1:55:45 AM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Bromoform	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Bromomethane	ND	3.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
2-Butanone	ND	10		µg/L	1	8/15/2015 1:55:45 AM	R28204
Carbon disulfide	ND	10		µg/L	1	8/15/2015 1:55:45 AM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Chloroethane	ND	2.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Chloroform	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Chloromethane	ND	3.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/15/2015 1:55:45 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 7:00:00 AM

Lab ID: 1508659-001

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
2-Hexanone	ND	10		µg/L	1	8/15/2015 1:55:45 AM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/15/2015 1:55:45 AM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Styrene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/15/2015 1:55:45 AM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/15/2015 1:55:45 AM	R28204
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%REC	1	8/15/2015 1:55:45 AM	R28204
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	8/15/2015 1:55:45 AM	R28204
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/15/2015 1:55:45 AM	R28204
Surr: Toluene-d8	96.4	70-130		%REC	1	8/15/2015 1:55:45 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 9:20:00 AM

Lab ID: 1508659-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 8:28:54 PM	G28456
Lead	ND	0.0025		mg/L	5	8/25/2015 8:28:54 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 8:28:54 PM	G28456
Uranium	0.0087	0.0025		mg/L	5	8/25/2015 8:28:54 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.5	2.0		mg/L	20	8/14/2015 8:00:10 PM	R28222
Chloride	33	10		mg/L	20	8/14/2015 8:00:10 PM	R28222
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/14/2015 7:47:46 PM	R28222
Bromide	ND	0.10		mg/L	1	8/14/2015 7:47:46 PM	R28222
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/14/2015 7:47:46 PM	R28222
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2015 7:47:46 PM	R28222
Sulfate	250	10		mg/L	20	8/14/2015 8:00:10 PM	R28222
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	9/2/2015 7:08:31 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 7:08:31 PM	A28620
Calcium	3.1	1.0		mg/L	1	9/2/2015 7:08:31 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 7:08:31 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 7:08:31 PM	A28620
Iron	0.040	0.020		mg/L	1	9/2/2015 7:08:31 PM	A28620
Magnesium	ND	1.0		mg/L	1	9/2/2015 7:08:31 PM	A28620
Manganese	0.011	0.0020		mg/L	1	9/2/2015 7:08:31 PM	A28620
Potassium	ND	1.0		mg/L	1	9/2/2015 7:08:31 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 7:08:31 PM	A28620
Sodium	310	5.0		mg/L	5	9/2/2015 7:10:33 PM	A28620
Zinc	ND	0.010		mg/L	1	9/2/2015 7:08:31 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.044	0.0020		mg/L	1	8/25/2015 6:47:48 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 6:58:14 PM	20947
Chromium	0.0073	0.0060		mg/L	1	8/31/2015 6:58:14 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 6:47:48 PM	20947
Iron	0.36	0.020	*	mg/L	1	8/31/2015 6:58:14 PM	20947
Manganese	0.049	0.0020		mg/L	1	8/27/2015 1:14:15 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 6:58:14 PM	20947
Zinc	ND	0.010		mg/L	1	8/25/2015 6:47:48 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/26/2015 6:13:19 PM	20947
Lead	0.00051	0.00050		mg/L	1	8/26/2015 6:13:19 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 9:20:00 AM

Lab ID: 1508659-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0010		mg/L	1	8/26/2015 6:13:19 PM	20947
Uranium	0.010	0.00050		mg/L	1	8/26/2015 6:13:19 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:29:01 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/15/2015 2:23:18 AM	R28204
Surr: BFB	95.4	70-130		%REC	1	8/15/2015 2:23:18 AM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 2:49:43 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 2:49:43 PM	20791
Surr: DNOP	97.0	72-136		%REC	1	8/14/2015 2:49:43 PM	20791
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Toluene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Naphthalene	ND	2.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Acetone	ND	10		µg/L	1	8/15/2015 2:23:18 AM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Bromoform	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Bromomethane	ND	3.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
2-Butanone	ND	10		µg/L	1	8/15/2015 2:23:18 AM	R28204
Carbon disulfide	ND	10		µg/L	1	8/15/2015 2:23:18 AM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Chloroethane	ND	2.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Chloroform	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Chloromethane	ND	3.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 9:20:00 AM

Lab ID: 1508659-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
cis-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
2-Hexanone	ND	10		µg/L	1	8/15/2015 2:23:18 AM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/15/2015 2:23:18 AM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Styrene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/15/2015 2:23:18 AM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/15/2015 2:23:18 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 9:20:00 AM

Lab ID: 1508659-002

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	ND	1.5		µg/L	1	8/15/2015 2:23:18 AM	R28204
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%REC	1	8/15/2015 2:23:18 AM	R28204
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	8/15/2015 2:23:18 AM	R28204
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/15/2015 2:23:18 AM	R28204
Surr: Toluene-d8	98.1	70-130		%REC	1	8/15/2015 2:23:18 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 11:05:00 AM

Lab ID: 1508659-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	8/25/2015 8:31:57 PM	G28456
Lead	ND	0.0025		mg/L	5	8/25/2015 8:31:57 PM	G28456
Selenium	ND	0.0050		mg/L	5	8/25/2015 8:31:57 PM	G28456
Uranium	0.012	0.0025		mg/L	5	8/25/2015 8:31:57 PM	G28456
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.49	0.10		mg/L	1	8/14/2015 8:37:24 PM	R28222
Chloride	18	10		mg/L	20	8/14/2015 8:49:49 PM	R28222
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/14/2015 8:37:24 PM	R28222
Bromide	0.14	0.10		mg/L	1	8/14/2015 8:37:24 PM	R28222
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/14/2015 8:37:24 PM	R28222
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/14/2015 8:37:24 PM	R28222
Sulfate	150	10		mg/L	20	8/14/2015 8:49:49 PM	R28222
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	1100	0.010		µmhos/cm	1	8/18/2015 5:58:37 PM	R28306
SM4500-H+B: PH							Analyst: JRR
pH	9.35	1.68	*H	pH units	1	8/18/2015 5:58:37 PM	R28306
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	9/2/2015 7:12:22 PM	A28620
Cadmium	ND	0.0020		mg/L	1	9/2/2015 7:12:22 PM	A28620
Calcium	1.9	1.0		mg/L	1	9/2/2015 7:12:22 PM	A28620
Chromium	ND	0.0060		mg/L	1	9/2/2015 7:12:22 PM	A28620
Copper	ND	0.0060		mg/L	1	9/2/2015 7:12:22 PM	A28620
Iron	0.043	0.020		mg/L	1	9/2/2015 7:12:22 PM	A28620
Magnesium	ND	1.0		mg/L	1	9/2/2015 7:12:22 PM	A28620
Manganese	0.0030	0.0020		mg/L	1	9/2/2015 7:12:22 PM	A28620
Potassium	ND	1.0		mg/L	1	9/2/2015 7:12:22 PM	A28620
Silver	ND	0.0050		mg/L	1	9/2/2015 7:12:22 PM	A28620
Sodium	260	5.0		mg/L	5	9/2/2015 7:14:26 PM	A28620
Zinc	ND	0.010		mg/L	1	9/2/2015 7:12:22 PM	A28620
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.023	0.0020		mg/L	1	8/25/2015 7:03:12 PM	20947
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:11:33 PM	20947
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:11:33 PM	20947
Copper	ND	0.0060		mg/L	1	8/25/2015 7:03:12 PM	20947
Iron	0.078	0.020		mg/L	1	8/25/2015 7:03:12 PM	20947
Manganese	0.0038	0.0020		mg/L	1	8/27/2015 1:16:18 PM	21000
Silver	ND	0.0050		mg/L	1	8/31/2015 7:11:33 PM	20947

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 11:05:00 AM

Lab ID: 1508659-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Zinc	ND	0.010		mg/L	1	8/25/2015 7:03:12 PM	20947
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0016	0.0010		mg/L	1	8/26/2015 6:16:20 PM	20947
Lead	ND	0.00050		mg/L	1	8/26/2015 6:16:20 PM	20947
Selenium	ND	0.0010		mg/L	1	8/26/2015 6:16:20 PM	20947
Uranium	0.014	0.00050		mg/L	1	8/26/2015 6:16:20 PM	20947
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	8/26/2015 3:31:08 PM	20988
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/15/2015 2:50:47 AM	R28204
Surr: BFB	99.9	70-130		%REC	1	8/15/2015 2:50:47 AM	R28204
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/14/2015 3:11:16 PM	20791
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/14/2015 3:11:16 PM	20791
Surr: DNOP	97.7	72-136		%REC	1	8/14/2015 3:11:16 PM	20791
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Acenaphthylene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Aniline	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Anthracene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Azobenzene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Benzoic acid	ND	20		µg/L	1	8/25/2015 2:48:31 PM	20834
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Carbazole	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 11:05:00 AM

Lab ID: 1508659-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Chrysene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Dibenzofuran	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 2:48:31 PM	20834
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 2:48:31 PM	20834
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 2:48:31 PM	20834
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Fluoranthene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Fluorene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Hexachloroethane	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Isophorone	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2-Methylphenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Naphthalene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 11:05:00 AM

Lab ID: 1508659-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Nitrobenzene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 2:48:31 PM	20834
Phenanthrene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Phenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Pyrene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Pyridine	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:48:31 PM	20834
Surr: 2-Fluorophenol	60.7	14.9-111		%REC	1	8/25/2015 2:48:31 PM	20834
Surr: Phenol-d5	55.8	11.3-108		%REC	1	8/25/2015 2:48:31 PM	20834
Surr: 2,4,6-Tribromophenol	90.1	15.7-154		%REC	1	8/25/2015 2:48:31 PM	20834
Surr: Nitrobenzene-d5	85.8	47.8-106		%REC	1	8/25/2015 2:48:31 PM	20834
Surr: 2-Fluorobiphenyl	80.7	21.3-123		%REC	1	8/25/2015 2:48:31 PM	20834
Surr: 4-Terphenyl-d14	107	14.3-135		%REC	1	8/25/2015 2:48:31 PM	20834
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Toluene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Naphthalene	ND	2.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Acetone	ND	10		µg/L	1	8/15/2015 2:50:47 AM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Bromoform	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Bromomethane	ND	3.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
2-Butanone	ND	10		µg/L	1	8/15/2015 2:50:47 AM	R28204
Carbon disulfide	ND	10		µg/L	1	8/15/2015 2:50:47 AM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Chloroethane	ND	2.0		µg/L	1	8/15/2015 2:50:47 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 11:05:00 AM

Lab ID: 1508659-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Chloroform	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Chloromethane	ND	3.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
2-Hexanone	ND	10		µg/L	1	8/15/2015 2:50:47 AM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/15/2015 2:50:47 AM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Styrene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/13/2015 11:05:00 AM

Lab ID: 1508659-003

Matrix: AQUEOUS

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/15/2015 2:50:47 AM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/15/2015 2:50:47 AM	R28204
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/15/2015 2:50:47 AM	R28204
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/15/2015 2:50:47 AM	R28204
Surr: Dibromofluoromethane	108	70-130		%REC	1	8/15/2015 2:50:47 AM	R28204
Surr: Toluene-d8	97.7	70-130		%REC	1	8/15/2015 2:50:47 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508659-004

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/15/2015 3:18:15 AM	R28204
Surr: BFB	99.0	70-130		%REC	1	8/15/2015 3:18:15 AM	R28204
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Toluene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Ethylbenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Naphthalene	ND	2.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
2-Methylnaphthalene	ND	4.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Acetone	ND	10		µg/L	1	8/15/2015 3:18:15 AM	R28204
Bromobenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Bromodichloromethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Bromoform	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Bromomethane	ND	3.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
2-Butanone	ND	10		µg/L	1	8/15/2015 3:18:15 AM	R28204
Carbon disulfide	ND	10		µg/L	1	8/15/2015 3:18:15 AM	R28204
Carbon Tetrachloride	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Chlorobenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Chloroethane	ND	2.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Chloroform	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Chloromethane	ND	3.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
2-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
4-Chlorotoluene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
cis-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Dibromochloromethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Dibromomethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,1-Dichloroethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,1-Dichloroethene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508659

Date Reported: 9/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date:

Lab ID: 1508659-004

Matrix: TRIP BLANK

Received Date: 8/13/2015 3:30:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,3-Dichloropropane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
2,2-Dichloropropane	ND	2.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,1-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Hexachlorobutadiene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
2-Hexanone	ND	10		µg/L	1	8/15/2015 3:18:15 AM	R28204
Isopropylbenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
4-Isopropyltoluene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
4-Methyl-2-pentanone	ND	10		µg/L	1	8/15/2015 3:18:15 AM	R28204
Methylene Chloride	ND	3.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
n-Butylbenzene	ND	3.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
n-Propylbenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
sec-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Styrene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
tert-Butylbenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
trans-1,2-DCE	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Trichlorofluoromethane	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Vinyl chloride	ND	1.0		µg/L	1	8/15/2015 3:18:15 AM	R28204
Xylenes, Total	ND	1.5		µg/L	1	8/15/2015 3:18:15 AM	R28204
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/15/2015 3:18:15 AM	R28204
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	8/15/2015 3:18:15 AM	R28204
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/15/2015 3:18:15 AM	R28204
Surr: Toluene-d8	94.3	70-130		%REC	1	8/15/2015 3:18:15 AM	R28204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB		SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	PBW		Batch ID: A28620			RunNo: 28620				
Prep Date:			Analysis Date: 9/2/2015			SeqNo: 865969		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: A28620			RunNo: 28620				
Prep Date:			Analysis Date: 9/2/2015			SeqNo: 865973		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.0	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	96.1	85	115			
Copper	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.48	0.020	0.5000	0	95.5	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.47	0.0020	0.5000	0	93.9	85	115			
Potassium	50	1.0	50.00	0	99.5	85	115			
Silver	0.098	0.0050	0.1000	0	97.7	85	115			
Sodium	51	1.0	50.00	0	102	85	115			
Zinc	0.48	0.010	0.5000	0	96.9	85	115			

Sample ID	LLLCS		SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: A28620			RunNo: 28620				
Prep Date:			Analysis Date: 9/2/2015			SeqNo: 865974		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	89.0	50	150			
Cadmium	0.0021	0.0020	0.002000	0	105	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Chromium	0.0067	0.0060	0.006000	0	112	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LLLCS		SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: A28620			RunNo: 28620				
Prep Date:			Analysis Date: 9/2/2015			SeqNo: 865974		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060	0.006000	0	75.8	50	150			
Iron	0.022	0.020	0.02000	0	111	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	ND	0.0020	0.002000	0	96.5	50	150			
Potassium	ND	1.0	0.5000	0	113	50	150			
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Sodium	ND	1.0	0.5000	0	106	50	150			
Zinc	ND	0.010	0.005000	0	113	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20947		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859560		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-20947		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859561		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Copper	0.47	0.0060	0.5000	0	94.8	85	115			
Iron	0.52	0.020	0.5000	0	103	85	115			
Silver	0.094	0.0050	0.1000	0	93.6	85	115			
Zinc	0.48	0.010	0.5000	0	96.2	85	115			

Sample ID	LLCS-20947		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859562		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	101	50	150			
Cadmium	ND	0.0020	0.002000	0	84.5	50	150			
Copper	ND	0.0060	0.006000	0	99.8	50	150			
Iron	0.022	0.020	0.02000	0	112	50	150			
Silver	ND	0.0050	0.005000	0	74.0	50	150			
Zinc	ND	0.010	0.005000	0	131	50	150			

Sample ID	1508659-002FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW-1C		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859716		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.04354	98.5	70	130			
Copper	0.54	0.0060	0.5000	0	109	70	130			
Zinc	0.52	0.010	0.5000	0.005570	103	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508659-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW-1C		Batch ID: 20947		RunNo: 28449					
Prep Date:	8/24/2015		Analysis Date: 8/25/2015		SeqNo: 859717		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.04354	97.8	70	130	0.612	20	
Copper	0.54	0.0060	0.5000	0	107	70	130	1.65	20	
Zinc	0.52	0.010	0.5000	0.005570	103	70	130	0.130	20	

Sample ID	MB-20947		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 20947		RunNo: 28465					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 860590		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								

Sample ID	LCS-20947		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 20947		RunNo: 28465					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 860591		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.48	0.0060	0.5000	0	95.6	85	115			

Sample ID	LLLCS-20947		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 20947		RunNo: 28465					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 860592		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0066	0.0060	0.006000	0	109	50	150			

Sample ID	1508659-002FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW-1C		Batch ID: 20947		RunNo: 28565					
Prep Date:	8/24/2015		Analysis Date: 8/31/2015		SeqNo: 864282		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.51	0.0060	0.5000	0.007290	100	70	130			
Iron	0.93	0.020	0.5000	0.3637	113	70	130			
Silver	0.10	0.0050	0.1000	0	102	70	130			

Sample ID	1508659-002FMSD			SampType:	MSD			TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BW-1C			Batch ID:	20947			RunNo:	28565			
Prep Date:	8/24/2015			Analysis Date:	8/31/2015			SeqNo:	864283		Units:	mg/L
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508659-002FMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BW-1C	Batch ID:	20947	RunNo:	28565					
Prep Date:	8/24/2015	Analysis Date:	8/31/2015	SeqNo:	864283	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	101	70	130	0.646	20	
Chromium	0.50	0.0060	0.5000	0.007290	99.2	70	130	1.05	20	
Iron	0.94	0.020	0.5000	0.3637	115	70	130	1.08	20	
Silver	0.10	0.0050	0.1000	0	100	70	130	1.57	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: G28456		RunNo: 28456					
Prep Date:			Analysis Date: 8/25/2015		SeqNo: 860086		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.7	85	115			
Lead	0.011	0.00050	0.01250	0	91.9	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: G28456		RunNo: 28456					
Prep Date:			Analysis Date: 8/25/2015		SeqNo: 860090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	97.5	50	150			
Lead	0.00053	0.00050	0.0005000	0	105	50	150			
Selenium	0.0010	0.0010	0.001000	0	102	50	150			
Uranium	0.00050	0.00050	0.0005000	0	101	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: G28456			RunNo: 28456					
Prep Date:		Analysis Date: 8/25/2015			SeqNo: 860094		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20947		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 20947		RunNo: 28478					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861344		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-20947		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 20947		RunNo: 28478					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861346		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.013	0.00050	0.01250	0	100	85	115			
Selenium	0.024	0.0010	0.02500	0	94.9	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	MSLLCS-20947		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 20947		RunNo: 28478					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861348		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	77.3	50	150			
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	ND	0.0010	0.001000	0	92.1	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20988	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	20988	RunNo:	28479					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	860844	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-20988	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	20988	RunNo:	28479					
Prep Date:	8/26/2015	Analysis Date:	8/26/2015	SeqNo:	860845	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28222	RunNo:	28222					
Prep Date:		Analysis Date:	8/14/2015	SeqNo:	850804	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28222	RunNo:	28222					
Prep Date:		Analysis Date:	8/14/2015	SeqNo:	850805	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.9	0.50	5.000	0	97.1	90	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	99.7	90	110			
Bromide	2.5	0.10	2.500	0	99.0	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	98.9	90	110			
Sulfate	9.9	0.50	10.00	0	98.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20791		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20791		RunNo: 28189					
Prep Date:	8/14/2015		Analysis Date: 8/14/2015		SeqNo: 852665		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.90		1.000		90.4	72	136			

Sample ID	LCS-20791		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20791		RunNo: 28189					
Prep Date:	8/14/2015		Analysis Date: 8/14/2015		SeqNo: 852666		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.4	1.0	5.000	0	89.0	60.1	156			
Surr: DNOP	0.44		0.5000		88.9	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28204			RunNo: 28204					
Prep Date:		Analysis Date: 8/14/2015			SeqNo: 852289	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R28204				RunNo: 28204				
Prep Date:		Analysis Date: 8/14/2015				SeqNo: 852289	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	2.5								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R28204				RunNo: 28204				
Prep Date:		Analysis Date: 8/14/2015				SeqNo: 852290	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	20	1.0	20.00	0	99.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R28204			RunNo: 28204					
Prep Date:		Analysis Date: 8/14/2015			SeqNo: 852290		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	12		10.00		116	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID	rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28204			RunNo: 28204					
Prep Date:		Analysis Date: 8/15/2015			SeqNo: 852318		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28204	RunNo:	28204					
Prep Date:		Analysis Date:	8/15/2015	SeqNo:	852318	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1		SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW		Batch ID: R28204			RunNo: 28204				
Prep Date:			Analysis Date: 8/15/2015			SeqNo: 852318		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID	100ng lcs2		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R28204		RunNo: 28204					
Prep Date:			Analysis Date: 8/14/2015		SeqNo: 852319		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	113	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20889		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	PBW		Batch ID:	20889		RunNo:	28422			
Prep Date:	8/20/2015		Analysis Date:	8/24/2015		SeqNo:	858874		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.3	14.9	111			
Surr: Phenol-d5	140		200.0		70.9	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		70.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		73.8	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.1	21.3	123			
Surr: 4-Terphenyl-d14	51		100.0		51.5	14.3	135			

Sample ID	lcs-20889		SampType:	LCS		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSW		Batch ID:	20889		RunNo:	28422			
Prep Date:	8/20/2015		Analysis Date:	8/24/2015		SeqNo:	858875		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		68.0	14.9	111			
Surr: Phenol-d5	130		200.0		66.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.3	15.7	154			
Surr: Nitrobenzene-d5	68		100.0		67.5	47.8	106			
Surr: 2-Fluorobiphenyl	68		100.0		67.5	21.3	123			
Surr: 4-Terphenyl-d14	55		100.0		55.4	14.3	135			

Sample ID	lcsd-20889		SampType:	LCSD		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSS02		Batch ID:	20889		RunNo:	28422			
Prep Date:	8/20/2015		Analysis Date:	8/24/2015		SeqNo:	858876		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	150		200.0		77.4	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		81.4	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	82		100.0		82.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	21.3	123	0	0	
Surr: 4-Terphenyl-d14	62		100.0		61.7	14.3	135	0	0	

Sample ID	mb-20834		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	PBW		Batch ID:	20834		RunNo:	28422			
Prep Date:	8/17/2015		Analysis Date:	8/25/2015		SeqNo:	859164		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859164		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20834	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20834	RunNo:	28422					
Prep Date:	8/17/2015	Analysis Date:	8/25/2015	SeqNo:	859164	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	170		200.0		83.1	14.9	111			
Surr: Phenol-d5	170		200.0		85.4	11.3	108			
Surr: 2,4,6-Tribromophenol	200		200.0		98.2	15.7	154			
Surr: Nitrobenzene-d5	91		100.0		91.2	47.8	106			
Surr: 2-Fluorobiphenyl	92		100.0		91.9	21.3	123			
Surr: 4-Terphenyl-d14	140		100.0		141	14.3	135			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	Ics-20834		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859165		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	10	100.0	0	81.3	47.8	99.7			
4-Chloro-3-methylphenol	170	10	200.0	0	84.8	58.1	103			
2-Chlorophenol	160	10	200.0	0	82.1	49.5	96.8			
1,4-Dichlorobenzene	87	10	100.0	0	87.3	40.4	89.4			
2,4-Dinitrotoluene	62	10	100.0	0	62.4	38.6	91.3			
N-Nitrosodi-n-propylamine	81	10	100.0	0	81.4	53.9	95.6			
4-Nitrophenol	170	10	200.0	0	86.1	26.4	108			
Pentachlorophenol	170	20	200.0	0	83.0	36.5	86.6			
Phenol	160	10	200.0	0	78.1	29.3	108			
Pyrene	130	10	100.0	0	132	45.7	100			S
1,2,4-Trichlorobenzene	93	10	100.0	0	92.9	39.3	94.5			
Surr: 2-Fluorophenol	150		200.0		77.2	14.9	111			
Surr: Phenol-d5	160		200.0		81.5	11.3	108			
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	15.7	154			
Surr: Nitrobenzene-d5	84		100.0		83.8	47.8	106			
Surr: 2-Fluorobiphenyl	84		100.0		83.6	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		113	14.3	135			

Sample ID	Icsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	82	10	100.0	0	82.1	47.8	99.7	0.980	28.2	
4-Chloro-3-methylphenol	180	10	200.0	0	88.7	58.1	103	4.48	24.4	
2-Chlorophenol	180	10	200.0	0	88.0	49.5	96.8	6.93	28.1	
1,4-Dichlorobenzene	89	10	100.0	0	89.2	40.4	89.4	2.15	31.2	
2,4-Dinitrotoluene	63	10	100.0	0	62.9	38.6	91.3	0.862	44.4	
N-Nitrosodi-n-propylamine	91	10	100.0	0	90.6	53.9	95.6	10.7	24.2	
4-Nitrophenol	150	10	200.0	0	77.1	26.4	108	11.0	36.6	
Pentachlorophenol	160	20	200.0	0	79.2	36.5	86.6	4.59	29.5	
Phenol	170	10	200.0	0	84.2	29.3	108	7.55	30	
Pyrene	130	10	100.0	0	127	45.7	100	3.20	31	S
1,2,4-Trichlorobenzene	98	10	100.0	0	98.2	39.3	94.5	5.57	24	S
Surr: 2-Fluorophenol	160		200.0		79.0	14.9	111	0	0	
Surr: Phenol-d5	170		200.0		83.0	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	190		200.0		97.3	15.7	154	0	0	
Surr: Nitrobenzene-d5	84		100.0		84.2	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	87		100.0		86.9	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	Icsd-20834		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20834		RunNo: 28422					
Prep Date:	8/17/2015		Analysis Date: 8/25/2015		SeqNo: 859166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	100		100.0		104	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508659

08-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb1		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R28204		RunNo: 28204					
Prep Date:			Analysis Date: 8/15/2015		SeqNo: 852380		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.9		10.00		98.5	70	130			

Sample ID	2.5ug gro lcs		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R28204		RunNo: 28204					
Prep Date:			Analysis Date: 8/14/2015		SeqNo: 852385		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	102	80.6	122			
Surr: BFB	9.8		10.00		97.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1508659**

RcptNo: **1**

Received by/date:

CS

08/13/15

Logged By: **Ashley Gallegos**

8/13/2015 3:30:00 PM

Ag

Completed By: **Ashley Gallegos**

8/13/2015 6:35:34 PM

Ag

Reviewed By:

mg/cs

08/14/15

Chain of Custody

1. Custody seals intact on sample bottles?
2. Is Chain of Custody complete?
3. How was the sample delivered?

Yes ☒

No ☐

Not Present ☐

Yes ☒

No ☐

Not Present ☐

Courier

Log In

4. Was an attempt made to cool the samples?
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?
6. Sample(s) in proper container(s)?
7. Sufficient sample volume for indicated test(s)?
8. Are samples (except VOA and ONG) properly preserved?
9. Was preservative added to bottles?
10. VOA vials have zero headspace?
11. Were any sample containers received broken?
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody?
14. Is it clear what analyses were requested?
15. Were all holding times able to be met?
(If no, notify customer for authorization.)

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☐

No ☒

NA ☐

Yes ☒

No ☐

No VOA Vials ☐

Yes ☐

No ☒

of preserved bottles checked for pH:

CS 08/13/15
36

(<2 or >12 unless noted)

Yes ☒

No ☐

Adjusted? *no*

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Checked by: *CS*

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 18, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3RD Quarter MKTF WELLS

OrderNo.: 1508884

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 8/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1508884
Date: 9/18/2015

CLIENT: Western Refining Southwest, Gallup
Project: 2015 3RD Quarter MKTF WELLS

Analytical Notes Regarding EPA Method 8270 - Sample MKTF-9

The phenol surrogate recoveries were low for sample MKTF-9. The sample was reextracted, past the holding time, and the sample results were confirmed.

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 7:00:00 AM

Lab ID: 1508884-001

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Benzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Toluene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Naphthalene	ND	2.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Acetone	ND	10		µg/L	1	8/24/2015 5:30:51 PM	R28420
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Bromoform	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Bromomethane	ND	3.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
2-Butanone	ND	10		µg/L	1	8/24/2015 5:30:51 PM	R28420
Carbon disulfide	ND	10		µg/L	1	8/24/2015 5:30:51 PM	R28420
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Chloroethane	ND	2.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Chloroform	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Chloromethane	ND	3.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 5:30:51 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 7:00:00 AM

Lab ID: 1508884-001

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: BCN			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
2-Hexanone	ND	10		µg/L	1	8/24/2015 5:30:51 PM	R28420
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 5:30:51 PM	R28420
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Styrene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 5:30:51 PM	R28420
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 5:30:51 PM	R28420
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%REC	1	8/24/2015 5:30:51 PM	R28420
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	1	8/24/2015 5:30:51 PM	R28420
Surr: Dibromofluoromethane	91.7	70-130		%REC	1	8/24/2015 5:30:51 PM	R28420
Surr: Toluene-d8	97.4	70-130		%REC	1	8/24/2015 5:30:51 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/17/2015 3:05:00 PM

Lab ID: 1508884-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/2/2015 7:59:50 PM	D28630
Lead	0.0075	0.0025		mg/L	5	9/2/2015 7:59:50 PM	D28630
Selenium	0.015	0.0050		mg/L	5	9/2/2015 7:59:50 PM	D28630
Uranium	0.21	0.010	*	mg/L	20	9/4/2015 1:31:28 PM	B28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.58	0.50		mg/L	5	8/20/2015 12:28:33 AM	R28334
Chloride	110	10		mg/L	20	8/20/2015 12:40:58 AM	R28334
Bromide	0.58	0.50		mg/L	5	8/20/2015 12:28:33 AM	R28334
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/20/2015 12:28:33 AM	R28334
Sulfate	120	2.5		mg/L	5	8/20/2015 12:28:33 AM	R28334
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/1/2015 3:34:10 PM	R28611
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.11	0.0020		mg/L	1	9/3/2015 7:42:29 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:42:29 PM	C28648
Calcium	8.9	1.0		mg/L	1	9/3/2015 7:42:29 PM	C28648
Chromium	0.013	0.0060		mg/L	1	9/3/2015 7:42:29 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 7:42:29 PM	C28648
Iron	2.6	0.10	*	mg/L	5	9/3/2015 7:44:14 PM	C28648
Magnesium	1.3	1.0		mg/L	1	9/3/2015 7:42:29 PM	C28648
Manganese	0.20	0.0020	*	mg/L	1	9/3/2015 7:42:29 PM	C28648
Potassium	1.9	1.0		mg/L	1	9/3/2015 7:42:29 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 7:42:29 PM	C28648
Sodium	480	5.0		mg/L	5	9/3/2015 7:44:14 PM	C28648
Zinc	0.016	0.010		mg/L	1	9/3/2015 7:42:29 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.43	0.0020		mg/L	1	8/31/2015 7:13:34 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:13:34 PM	21024
Chromium	0.031	0.0060		mg/L	1	8/31/2015 7:13:34 PM	21024
Copper	0.016	0.0060		mg/L	1	8/31/2015 7:13:34 PM	21024
Iron	26	1.0	*	mg/L	50	9/2/2015 1:50:16 PM	21024
Manganese	0.92	0.0020	*	mg/L	1	8/31/2015 7:13:34 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:13:34 PM	21024
Zinc	0.10	0.010		mg/L	1	8/31/2015 7:13:34 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/1/2015 7:57:28 PM	21024
Lead	0.034	0.0050	*	mg/L	10	9/1/2015 7:57:28 PM	21024
Selenium	0.015	0.010		mg/L	10	9/1/2015 7:57:28 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/17/2015 3:05:00 PM

Lab ID: 1508884-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.24	0.0050	*	mg/L	10	9/1/2015 7:57:28 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 1:43:42 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/20/2015 2:07:26 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 2:07:26 PM	20873
Surr: DNOP	114	72-136		%REC	1	8/20/2015 2:07:26 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.10	D	mg/L	2	8/19/2015 10:37:08 PM	A28329
Surr: BFB	78.7	57.8-137	D	%REC	2	8/19/2015 10:37:08 PM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 6:11:20 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Carbazole	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/17/2015 3:05:00 PM

Lab ID: 1508884-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 6:11:20 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 6:11:20 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 6:11:20 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Fluorene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Naphthalene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 6:11:20 PM	20889
Phenanthrene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/17/2015 3:05:00 PM

Lab ID: 1508884-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 6:11:20 PM	20889
Surr: 2-Fluorophenol	75.0	14.9-111		%REC	1	8/24/2015 6:11:20 PM	20889
Surr: Phenol-d5	67.4	11.3-108		%REC	1	8/24/2015 6:11:20 PM	20889
Surr: 2,4,6-Tribromophenol	104	15.7-154		%REC	1	8/24/2015 6:11:20 PM	20889
Surr: Nitrobenzene-d5	96.0	47.8-106		%REC	1	8/24/2015 6:11:20 PM	20889
Surr: 2-Fluorobiphenyl	91.2	21.3-123		%REC	1	8/24/2015 6:11:20 PM	20889
Surr: 4-Terphenyl-d14	64.6	14.3-135		%REC	1	8/24/2015 6:11:20 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Toluene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Naphthalene	ND	2.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Acetone	ND	10		µg/L	1	8/24/2015 5:59:38 PM	R28420
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Bromoform	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Bromomethane	ND	3.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
2-Butanone	ND	10		µg/L	1	8/24/2015 5:59:38 PM	R28420
Carbon disulfide	ND	10		µg/L	1	8/24/2015 5:59:38 PM	R28420
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Chloroethane	ND	2.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Chloroform	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Chloromethane	ND	3.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/17/2015 3:05:00 PM

Lab ID: 1508884-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
2-Hexanone	ND	10		µg/L	1	8/24/2015 5:59:38 PM	R28420
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 5:59:38 PM	R28420
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Styrene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 5:59:38 PM	R28420
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 5:59:38 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/17/2015 3:05:00 PM

Lab ID: 1508884-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%REC	1	8/24/2015 5:59:38 PM	R28420
Surr: 4-Bromofluorobenzene	92.7	70-130		%REC	1	8/24/2015 5:59:38 PM	R28420
Surr: Dibromofluoromethane	91.2	70-130		%REC	1	8/24/2015 5:59:38 PM	R28420
Surr: Toluene-d8	98.3	70-130		%REC	1	8/24/2015 5:59:38 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-37

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:20:00 AM

Lab ID: 1508884-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 1:34:32 PM	B28672
Lead	0.0047	0.0025		mg/L	5	9/2/2015 8:18:12 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 1:34:32 PM	B28672
Uranium	0.019	0.0025		mg/L	5	9/2/2015 8:18:12 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	8/20/2015 1:55:25 AM	R28334
Chloride	110	10		mg/L	20	8/20/2015 2:07:50 AM	R28334
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/20/2015 1:55:25 AM	R28334
Bromide	0.80	0.50		mg/L	5	8/20/2015 1:55:25 AM	R28334
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/20/2015 1:55:25 AM	R28334
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/20/2015 1:55:25 AM	R28334
Sulfate	49	2.5		mg/L	5	8/20/2015 1:55:25 AM	R28334
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.19	0.0020		mg/L	1	9/3/2015 7:52:03 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:52:03 PM	C28648
Calcium	37	1.0		mg/L	1	9/3/2015 7:52:03 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:52:03 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 7:52:03 PM	C28648
Iron	2.6	0.10	*	mg/L	5	9/3/2015 7:53:53 PM	C28648
Magnesium	8.2	1.0		mg/L	1	9/3/2015 7:52:03 PM	C28648
Manganese	1.8	0.010	*	mg/L	5	9/3/2015 7:53:53 PM	C28648
Potassium	2.1	1.0		mg/L	1	9/3/2015 7:52:03 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 7:52:03 PM	C28648
Sodium	250	5.0		mg/L	5	9/3/2015 7:53:53 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 7:52:03 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.24	0.0020		mg/L	1	8/31/2015 7:15:25 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:15:25 PM	21024
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:15:25 PM	21024
Copper	0.0092	0.0060		mg/L	1	8/31/2015 7:15:25 PM	21024
Iron	5.7	0.20	*	mg/L	10	9/2/2015 1:52:15 PM	21024
Manganese	1.7	0.020	*	mg/L	10	9/2/2015 1:52:15 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:15:25 PM	21024
Zinc	0.074	0.010		mg/L	1	8/31/2015 7:15:25 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0031	0.0010		mg/L	1	8/28/2015 7:06:31 PM	21024
Lead	0.024	0.00050	*	mg/L	1	8/28/2015 7:06:31 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-37

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:20:00 AM

Lab ID: 1508884-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0050		mg/L	5	9/1/2015 8:00:29 PM	21024
Uranium	0.020	0.00050		mg/L	1	8/28/2015 7:06:31 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 1:45:50 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	39	1.0		mg/L	1	8/20/2015 2:33:59 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 2:33:59 PM	20873
Surr: DNOP	128	72-136		%REC	1	8/20/2015 2:33:59 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	11	1.0		mg/L	20	8/19/2015 11:02:03 PM	A28329
Surr: BFB	118	57.8-137		%REC	20	8/19/2015 11:02:03 PM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 6:41:27 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Carbazole	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-37

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:20:00 AM

Lab ID: 1508884-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 6:41:27 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 6:41:27 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 6:41:27 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Fluorene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
1-Methylnaphthalene	830	100		µg/L	10	8/25/2015 11:18:55 AM	20889
2-Methylnaphthalene	1400	100		µg/L	10	8/25/2015 11:18:55 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Naphthalene	1700	100		µg/L	10	8/25/2015 11:18:55 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 6:41:27 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-37

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:20:00 AM

Lab ID: 1508884-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Phenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 6:41:27 PM	20889
Surr: 2-Fluorophenol	73.6	14.9-111		%REC	1	8/24/2015 6:41:27 PM	20889
Surr: Phenol-d5	65.3	11.3-108		%REC	1	8/24/2015 6:41:27 PM	20889
Surr: 2,4,6-Tribromophenol	79.8	15.7-154		%REC	1	8/24/2015 6:41:27 PM	20889
Surr: Nitrobenzene-d5	0	47.8-106	S	%REC	1	8/24/2015 6:41:27 PM	20889
Surr: 2-Fluorobiphenyl	76.0	21.3-123		%REC	1	8/24/2015 6:41:27 PM	20889
Surr: 4-Terphenyl-d14	55.9	14.3-135		%REC	1	8/24/2015 6:41:27 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	760	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Toluene	140	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Ethylbenzene	24	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Methyl tert-butyl ether (MTBE)	50	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2,4-Trimethylbenzene	880	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,3,5-Trimethylbenzene	270	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2-Dichloroethane (EDC)	13	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Naphthalene	1500	400		µg/L	200	8/25/2015 12:10:40 PM	a28451
1-Methylnaphthalene	150	40		µg/L	10	8/24/2015 7:25:57 PM	R28420
2-Methylnaphthalene	300	40		µg/L	10	8/24/2015 7:25:57 PM	R28420
Acetone	ND	100		µg/L	10	8/24/2015 7:25:57 PM	R28420
Bromobenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Bromodichloromethane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Bromoform	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Bromomethane	ND	30		µg/L	10	8/24/2015 7:25:57 PM	R28420
2-Butanone	ND	100		µg/L	10	8/24/2015 7:25:57 PM	R28420
Carbon disulfide	ND	100		µg/L	10	8/24/2015 7:25:57 PM	R28420
Carbon Tetrachloride	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Chlorobenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Chloroethane	ND	20		µg/L	10	8/24/2015 7:25:57 PM	R28420
Chloroform	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Chloromethane	ND	30		µg/L	10	8/24/2015 7:25:57 PM	R28420
2-Chlorotoluene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
4-Chlorotoluene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-37

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:20:00 AM

Lab ID: 1508884-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: BCN			
cis-1,2-DCE	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/24/2015 7:25:57 PM	R28420
Dibromochloromethane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Dibromomethane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2-Dichlorobenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,3-Dichlorobenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,4-Dichlorobenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Dichlorodifluoromethane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,1-Dichloroethane	18	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,1-Dichloroethene	100	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2-Dichloropropane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,3-Dichloropropane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
2,2-Dichloropropane	ND	20		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,1-Dichloropropene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Hexachlorobutadiene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
2-Hexanone	ND	100		µg/L	10	8/24/2015 7:25:57 PM	R28420
Isopropylbenzene	200	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
4-Isopropyltoluene	17	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
4-Methyl-2-pentanone	ND	100		µg/L	10	8/24/2015 7:25:57 PM	R28420
Methylene Chloride	ND	30		µg/L	10	8/24/2015 7:25:57 PM	R28420
n-Butylbenzene	110	30		µg/L	10	8/24/2015 7:25:57 PM	R28420
n-Propylbenzene	180	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
sec-Butylbenzene	35	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Styrene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
tert-Butylbenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/24/2015 7:25:57 PM	R28420
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
trans-1,2-DCE	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,1,1-Trichloroethane	13	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,1,2-Trichloroethane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Trichloroethene (TCE)	270	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
Trichlorofluoromethane	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420
1,2,3-Trichloropropane	ND	20		µg/L	10	8/24/2015 7:25:57 PM	R28420
Vinyl chloride	ND	10		µg/L	10	8/24/2015 7:25:57 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-37

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:20:00 AM

Lab ID: 1508884-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: BCN		
Xylenes, Total	1600	300		µg/L	200	8/25/2015 12:10:40 PM	a28451
Surr: 1,2-Dichloroethane-d4	87.6	70-130		%REC	10	8/24/2015 7:25:57 PM	R28420
Surr: 4-Bromofluorobenzene	74.7	70-130		%REC	10	8/24/2015 7:25:57 PM	R28420
Surr: Dibromofluoromethane	113	70-130		%REC	10	8/24/2015 7:25:57 PM	R28420
Surr: Toluene-d8	95.4	70-130		%REC	10	8/24/2015 7:25:57 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-36

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:45:00 AM

Lab ID: 1508884-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.018	0.010	*	mg/L	10	9/4/2015 1:37:35 PM	B28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:21:16 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 1:37:35 PM	B28672
Uranium	ND	0.0025		mg/L	5	9/2/2015 8:21:16 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.60	0.50		mg/L	5	8/20/2015 2:20:15 AM	R28334
Chloride	140	10		mg/L	20	8/20/2015 2:32:40 AM	R28334
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/20/2015 2:20:15 AM	R28334
Bromide	0.77	0.50		mg/L	5	8/20/2015 2:20:15 AM	R28334
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/20/2015 2:20:15 AM	R28334
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/20/2015 2:20:15 AM	R28334
Sulfate	ND	2.5		mg/L	5	8/20/2015 2:20:15 AM	R28334
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	6.1	0.040	*	mg/L	20	9/4/2015 5:08:58 PM	A28671
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:55:58 PM	C28648
Calcium	140	5.0		mg/L	5	9/3/2015 7:57:49 PM	C28648
Chromium	0.0064	0.0060		mg/L	1	9/3/2015 7:55:58 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 7:55:58 PM	C28648
Iron	18	0.40	*	mg/L	20	9/4/2015 5:08:58 PM	A28671
Magnesium	43	1.0		mg/L	1	9/3/2015 7:55:58 PM	C28648
Manganese	2.5	0.010	*	mg/L	5	9/3/2015 7:57:49 PM	C28648
Potassium	ND	1.0		mg/L	1	9/3/2015 7:55:58 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 7:55:58 PM	C28648
Sodium	220	5.0		mg/L	5	9/3/2015 7:57:49 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 7:55:58 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	5.7	0.020	*	mg/L	10	9/2/2015 1:54:19 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:17:18 PM	21024
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:17:18 PM	21024
Copper	ND	0.0060		mg/L	1	8/31/2015 7:17:18 PM	21024
Iron	21	1.0	*	mg/L	50	9/2/2015 1:56:25 PM	21024
Manganese	2.7	0.020	*	mg/L	10	9/2/2015 1:54:19 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:17:18 PM	21024
Zinc	0.018	0.010		mg/L	1	8/31/2015 7:17:18 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.016	0.0010	*	mg/L	1	8/28/2015 7:11:40 PM	21024
Lead	0.017	0.00050	*	mg/L	1	8/28/2015 7:11:40 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-36

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:45:00 AM

Lab ID: 1508884-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0050		mg/L	5	9/1/2015 8:03:29 PM	21024
Uranium	0.0011	0.00050		mg/L	1	8/28/2015 7:11:40 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 1:47:49 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	14	1.0		mg/L	1	8/20/2015 3:00:45 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 3:00:45 PM	20873
Surr: DNOP	124	72-136		%REC	1	8/20/2015 3:00:45 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	39	5.0		mg/L	100	8/19/2015 11:26:57 PM	A28329
Surr: BFB	85.8	57.8-137		%REC	100	8/19/2015 11:26:57 PM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 7:11:31 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Carbazole	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-36

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:45:00 AM

Lab ID: 1508884-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 7:11:31 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 7:11:31 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 7:11:31 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Fluorene	12	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
1-Methylnaphthalene	340	40		µg/L	4	8/25/2015 11:48:43 AM	20889
2-Methylnaphthalene	510	40		µg/L	4	8/25/2015 11:48:43 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Naphthalene	520	40		µg/L	4	8/25/2015 11:48:43 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 7:11:31 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-36

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:45:00 AM

Lab ID: 1508884-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Phenol	48	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 7:11:31 PM	20889
Surr: 2-Fluorophenol	51.9	14.9-111		%REC	1	8/24/2015 7:11:31 PM	20889
Surr: Phenol-d5	53.2	11.3-108		%REC	1	8/24/2015 7:11:31 PM	20889
Surr: 2,4,6-Tribromophenol	90.7	15.7-154		%REC	1	8/24/2015 7:11:31 PM	20889
Surr: Nitrobenzene-d5	75.8	47.8-106		%REC	1	8/24/2015 7:11:31 PM	20889
Surr: 2-Fluorobiphenyl	79.2	21.3-123		%REC	1	8/24/2015 7:11:31 PM	20889
Surr: 4-Terphenyl-d14	64.1	14.3-135		%REC	1	8/24/2015 7:11:31 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	9000	200		µg/L	200	8/25/2015 11:13:04 AM	a28451
Toluene	33	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Ethylbenzene	1600	100		µg/L	100	8/24/2015 7:54:52 PM	R28420
Methyl tert-butyl ether (MTBE)	8000	100		µg/L	100	8/24/2015 7:54:52 PM	R28420
1,2,4-Trimethylbenzene	32	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Naphthalene	820	200		µg/L	100	8/24/2015 7:54:52 PM	R28420
1-Methylnaphthalene	380	40		µg/L	10	8/24/2015 8:23:40 PM	R28420
2-Methylnaphthalene	650	40		µg/L	10	8/24/2015 8:23:40 PM	R28420
Acetone	ND	100		µg/L	10	8/24/2015 8:23:40 PM	R28420
Bromobenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Bromodichloromethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Bromoform	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Bromomethane	ND	30		µg/L	10	8/24/2015 8:23:40 PM	R28420
2-Butanone	ND	100		µg/L	10	8/24/2015 8:23:40 PM	R28420
Carbon disulfide	ND	100		µg/L	10	8/24/2015 8:23:40 PM	R28420
Carbon Tetrachloride	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Chlorobenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Chloroethane	ND	20		µg/L	10	8/24/2015 8:23:40 PM	R28420
Chloroform	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Chloromethane	ND	30		µg/L	10	8/24/2015 8:23:40 PM	R28420
2-Chlorotoluene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
4-Chlorotoluene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-36

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:45:00 AM

Lab ID: 1508884-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/24/2015 8:23:40 PM	R28420
Dibromochloromethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Dibromomethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2-Dichlorobenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,3-Dichlorobenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,4-Dichlorobenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Dichlorodifluoromethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,1-Dichloroethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,1-Dichloroethene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2-Dichloropropane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,3-Dichloropropane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
2,2-Dichloropropane	ND	20		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,1-Dichloropropene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Hexachlorobutadiene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
2-Hexanone	ND	100		µg/L	10	8/24/2015 8:23:40 PM	R28420
Isopropylbenzene	33	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
4-Isopropyltoluene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
4-Methyl-2-pentanone	ND	100		µg/L	10	8/24/2015 8:23:40 PM	R28420
Methylene Chloride	ND	30		µg/L	10	8/24/2015 8:23:40 PM	R28420
n-Butylbenzene	ND	30		µg/L	10	8/24/2015 8:23:40 PM	R28420
n-Propylbenzene	73	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
sec-Butylbenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Styrene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
tert-Butylbenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/24/2015 8:23:40 PM	R28420
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
trans-1,2-DCE	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,1,1-Trichloroethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,1,2-Trichloroethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Trichloroethene (TCE)	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
Trichlorofluoromethane	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420
1,2,3-Trichloropropane	ND	20		µg/L	10	8/24/2015 8:23:40 PM	R28420
Vinyl chloride	ND	10		µg/L	10	8/24/2015 8:23:40 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-36

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 8:45:00 AM

Lab ID: 1508884-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	64	15		µg/L	10	8/24/2015 8:23:40 PM	R28420
Surr: 1,2-Dichloroethane-d4	92.0	70-130		%REC	10	8/24/2015 8:23:40 PM	R28420
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	10	8/24/2015 8:23:40 PM	R28420
Surr: Dibromofluoromethane	96.7	70-130		%REC	10	8/24/2015 8:23:40 PM	R28420
Surr: Toluene-d8	97.3	70-130		%REC	10	8/24/2015 8:23:40 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 9:05:00 AM

Lab ID: 1508884-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 1:46:47 PM	B28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:24:19 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 1:46:47 PM	B28672
Uranium	ND	0.0025		mg/L	5	9/2/2015 8:24:19 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.73	0.10		mg/L	1	8/20/2015 2:45:04 AM	R28334
Chloride	110	10		mg/L	20	8/20/2015 2:57:29 AM	R28334
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2015 2:45:04 AM	R28334
Bromide	0.33	0.10		mg/L	1	8/20/2015 2:45:04 AM	R28334
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/20/2015 2:45:04 AM	R28334
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2015 2:45:04 AM	R28334
Sulfate	20	0.50		mg/L	1	8/20/2015 2:45:04 AM	R28334
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.96	0.0020		mg/L	1	9/3/2015 7:59:45 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 7:59:45 PM	C28648
Calcium	130	5.0		mg/L	5	9/3/2015 8:01:36 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 7:59:45 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 7:59:45 PM	C28648
Iron	2.8	0.10	*	mg/L	5	9/3/2015 8:01:36 PM	C28648
Magnesium	37	1.0		mg/L	1	9/3/2015 7:59:45 PM	C28648
Manganese	2.9	0.010	*	mg/L	5	9/3/2015 8:01:36 PM	C28648
Potassium	ND	1.0		mg/L	1	9/3/2015 7:59:45 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 7:59:45 PM	C28648
Sodium	190	5.0		mg/L	5	9/3/2015 8:01:36 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 7:59:45 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	8.7	0.020	*	mg/L	10	9/2/2015 1:58:21 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:19:00 PM	21024
Chromium	0.016	0.0060		mg/L	1	8/31/2015 7:19:00 PM	21024
Copper	0.020	0.0060		mg/L	1	8/31/2015 7:19:00 PM	21024
Iron	17	1.0	*	mg/L	50	9/2/2015 2:00:30 PM	21024
Manganese	6.5	0.020	*	mg/L	10	9/2/2015 1:58:21 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:19:00 PM	21024
Zinc	0.051	0.010		mg/L	1	8/31/2015 7:19:00 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0038	0.0010		mg/L	1	8/28/2015 7:16:48 PM	21024
Lead	0.034	0.00050	*	mg/L	1	8/28/2015 7:16:48 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 9:05:00 AM

Lab ID: 1508884-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0050		mg/L	5	9/1/2015 8:12:34 PM	21024
Uranium	0.0054	0.00050		mg/L	1	8/28/2015 7:16:48 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 1:49:50 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	2.9	1.0		mg/L	1	8/20/2015 3:28:06 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 3:28:06 PM	20873
Surr: DNOP	118	72-136		%REC	1	8/20/2015 3:28:06 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4.7	0.25		mg/L	5	8/19/2015 11:51:54 PM	A28329
Surr: BFB	110	57.8-137		%REC	5	8/19/2015 11:51:54 PM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 7:41:32 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Carbazole	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 9:05:00 AM

Lab ID: 1508884-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 7:41:32 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 7:41:32 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 7:41:32 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Fluorene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Naphthalene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 7:41:32 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 9:05:00 AM

Lab ID: 1508884-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Phenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 7:41:32 PM	20889
Surr: 2-Fluorophenol	32.7	14.9-111		%REC	1	8/24/2015 7:41:32 PM	20889
Surr: Phenol-d5	39.0	11.3-108		%REC	1	8/24/2015 7:41:32 PM	20889
Surr: 2,4,6-Tribromophenol	64.7	15.7-154		%REC	1	8/24/2015 7:41:32 PM	20889
Surr: Nitrobenzene-d5	53.0	47.8-106		%REC	1	8/24/2015 7:41:32 PM	20889
Surr: 2-Fluorobiphenyl	55.6	21.3-123		%REC	1	8/24/2015 7:41:32 PM	20889
Surr: 4-Terphenyl-d14	60.2	14.3-135		%REC	1	8/24/2015 7:41:32 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	970	50		µg/L	50	8/24/2015 8:52:26 PM	R28420
Toluene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Ethylbenzene	160	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Methyl tert-butyl ether (MTBE)	61	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2,4-Trimethylbenzene	22	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Naphthalene	ND	10		µg/L	5	8/24/2015 11:16:34 PM	R28420
1-Methylnaphthalene	ND	20		µg/L	5	8/24/2015 11:16:34 PM	R28420
2-Methylnaphthalene	ND	20		µg/L	5	8/24/2015 11:16:34 PM	R28420
Acetone	ND	50		µg/L	5	8/24/2015 11:16:34 PM	R28420
Bromobenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Bromodichloromethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Bromoform	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Bromomethane	ND	15		µg/L	5	8/24/2015 11:16:34 PM	R28420
2-Butanone	ND	50		µg/L	5	8/24/2015 11:16:34 PM	R28420
Carbon disulfide	ND	50		µg/L	5	8/24/2015 11:16:34 PM	R28420
Carbon Tetrachloride	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Chlorobenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Chloroethane	ND	10		µg/L	5	8/24/2015 11:16:34 PM	R28420
Chloroform	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Chloromethane	ND	15		µg/L	5	8/24/2015 11:16:34 PM	R28420
2-Chlorotoluene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
4-Chlorotoluene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 9:05:00 AM

Lab ID: 1508884-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/24/2015 11:16:34 PM	R28420
Dibromochloromethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Dibromomethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,1-Dichloroethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,1-Dichloroethene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2-Dichloropropane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,3-Dichloropropane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
2,2-Dichloropropane	ND	10		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,1-Dichloropropene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Hexachlorobutadiene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
2-Hexanone	ND	50		µg/L	5	8/24/2015 11:16:34 PM	R28420
Isopropylbenzene	10	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
4-Isopropyltoluene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
4-Methyl-2-pentanone	ND	50		µg/L	5	8/24/2015 11:16:34 PM	R28420
Methylene Chloride	ND	15		µg/L	5	8/24/2015 11:16:34 PM	R28420
n-Butylbenzene	ND	15		µg/L	5	8/24/2015 11:16:34 PM	R28420
n-Propylbenzene	36	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
sec-Butylbenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Styrene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
tert-Butylbenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/24/2015 11:16:34 PM	R28420
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
trans-1,2-DCE	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
Trichlorofluoromethane	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420
1,2,3-Trichloropropane	ND	10		µg/L	5	8/24/2015 11:16:34 PM	R28420
Vinyl chloride	ND	5.0		µg/L	5	8/24/2015 11:16:34 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 9:05:00 AM

Lab ID: 1508884-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	ND	7.5		µg/L	5	8/24/2015 11:16:34 PM	R28420
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%REC	5	8/24/2015 11:16:34 PM	R28420
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	5	8/24/2015 11:16:34 PM	R28420
Surr: Dibromofluoromethane	95.1	70-130		%REC	5	8/24/2015 11:16:34 PM	R28420
Surr: Toluene-d8	96.8	70-130		%REC	5	8/24/2015 11:16:34 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:04:00 AM

Lab ID: 1508884-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 1:49:50 PM	B28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:30:25 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 1:49:50 PM	B28672
Uranium	0.027	0.0025		mg/L	5	9/2/2015 8:30:25 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.44	0.10		mg/L	1	8/20/2015 3:34:43 AM	R28334
Chloride	350	25		mg/L	50	8/31/2015 1:04:09 PM	R28586
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2015 3:34:43 AM	R28334
Bromide	2.3	0.10		mg/L	1	8/20/2015 3:34:43 AM	R28334
Nitrogen, Nitrate (As N)	8.6	2.0		mg/L	20	8/20/2015 3:47:07 AM	R28334
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2015 3:34:43 AM	R28334
Sulfate	100	10		mg/L	20	8/20/2015 3:47:07 AM	R28334
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	9/3/2015 8:03:42 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:03:42 PM	C28648
Calcium	60	1.0		mg/L	1	9/3/2015 8:03:42 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 8:03:42 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:03:42 PM	C28648
Iron	ND	0.020		mg/L	1	9/3/2015 8:03:42 PM	C28648
Magnesium	14	1.0		mg/L	1	9/3/2015 8:03:42 PM	C28648
Manganese	ND	0.0020		mg/L	1	9/3/2015 8:03:42 PM	C28648
Potassium	1.5	1.0		mg/L	1	9/3/2015 8:03:42 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:03:42 PM	C28648
Sodium	380	5.0		mg/L	5	9/3/2015 8:05:44 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 8:03:42 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	8/31/2015 7:20:49 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:20:49 PM	21024
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:20:49 PM	21024
Copper	ND	0.0060		mg/L	1	8/31/2015 7:20:49 PM	21024
Iron	2.4	0.10	*	mg/L	5	9/2/2015 2:02:31 PM	21024
Manganese	0.074	0.0020	*	mg/L	1	8/31/2015 7:20:49 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:20:49 PM	21024
Zinc	0.030	0.010		mg/L	1	8/31/2015 7:20:49 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/1/2015 8:15:35 PM	21024
Lead	0.0027	0.00050		mg/L	1	8/28/2015 7:21:56 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:04:00 AM

Lab ID: 1508884-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.0086	0.0050		mg/L	5	9/1/2015 8:15:35 PM	21024
Uranium	0.031	0.0025	*	mg/L	5	9/1/2015 8:15:35 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 1:51:52 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/20/2015 3:55:14 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 3:55:14 PM	20873
Surr: DNOP	121	72-136		%REC	1	8/20/2015 3:55:14 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/20/2015 12:16:48 AM	A28329
Surr: BFB	81.3	57.8-137		%REC	1	8/20/2015 12:16:48 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 8:11:42 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Carbazole	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:04:00 AM

Lab ID: 1508884-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 8:11:42 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 8:11:42 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 8:11:42 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Fluorene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Naphthalene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 8:11:42 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:04:00 AM

Lab ID: 1508884-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Phenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 8:11:42 PM	20889
Surr: 2-Fluorophenol	47.8	14.9-111		%REC	1	8/24/2015 8:11:42 PM	20889
Surr: Phenol-d5	42.8	11.3-108		%REC	1	8/24/2015 8:11:42 PM	20889
Surr: 2,4,6-Tribromophenol	75.5	15.7-154		%REC	1	8/24/2015 8:11:42 PM	20889
Surr: Nitrobenzene-d5	63.1	47.8-106		%REC	1	8/24/2015 8:11:42 PM	20889
Surr: 2-Fluorobiphenyl	64.0	21.3-123		%REC	1	8/24/2015 8:11:42 PM	20889
Surr: 4-Terphenyl-d14	63.9	14.3-135		%REC	1	8/24/2015 8:11:42 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Toluene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Naphthalene	ND	2.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Acetone	ND	10		µg/L	1	8/24/2015 11:45:27 PM	R28420
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Bromoform	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Bromomethane	ND	3.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
2-Butanone	ND	10		µg/L	1	8/24/2015 11:45:27 PM	R28420
Carbon disulfide	ND	10		µg/L	1	8/24/2015 11:45:27 PM	R28420
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Chloroethane	ND	2.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Chloroform	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Chloromethane	ND	3.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:04:00 AM

Lab ID: 1508884-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
2-Hexanone	ND	10		µg/L	1	8/24/2015 11:45:27 PM	R28420
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 11:45:27 PM	R28420
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Styrene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Trichloroethene (TCE)	1.9	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 11:45:27 PM	R28420
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 11:45:27 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:04:00 AM

Lab ID: 1508884-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 11:45:27 PM	R28420
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	8/24/2015 11:45:27 PM	R28420
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	8/24/2015 11:45:27 PM	R28420
Surr: Dibromofluoromethane	92.0	70-130		%REC	1	8/24/2015 11:45:27 PM	R28420
Surr: Toluene-d8	96.6	70-130		%REC	1	8/24/2015 11:45:27 PM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 11:10:00 AM

Lab ID: 1508884-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:02:05 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:33:29 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:02:05 PM	C28672
Uranium	ND	0.0025		mg/L	5	9/2/2015 8:33:29 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.55	0.10		mg/L	1	8/20/2015 3:59:31 AM	R28334
Chloride	170	10		mg/L	20	8/20/2015 4:11:55 AM	R28334
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2015 3:59:31 AM	R28334
Bromide	0.52	0.10		mg/L	1	8/20/2015 3:59:31 AM	R28334
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/20/2015 3:59:31 AM	R28334
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2015 3:59:31 AM	R28334
Sulfate	ND	0.50		mg/L	1	8/20/2015 3:59:31 AM	R28334
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	2.0	0.010		mg/L	5	9/3/2015 8:09:45 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:07:37 PM	C28648
Calcium	74	1.0		mg/L	1	9/3/2015 8:07:37 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 8:07:37 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:07:37 PM	C28648
Iron	1.2	0.10	*	mg/L	5	9/3/2015 8:09:45 PM	C28648
Magnesium	20	1.0		mg/L	1	9/3/2015 8:07:37 PM	C28648
Manganese	1.7	0.010	*	mg/L	5	9/3/2015 8:09:45 PM	C28648
Potassium	ND	1.0		mg/L	1	9/3/2015 8:07:37 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:07:37 PM	C28648
Sodium	290	5.0		mg/L	5	9/3/2015 8:09:45 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 8:07:37 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	24	0.10	*	mg/L	50	9/2/2015 2:13:41 PM	21024
Cadmium	ND	0.010		mg/L	5	9/2/2015 2:04:24 PM	21024
Chromium	0.26	0.030	*	mg/L	5	9/2/2015 2:04:24 PM	21024
Copper	0.21	0.030		mg/L	5	9/2/2015 2:04:24 PM	21024
Iron	110	10	*	mg/L	500	9/2/2015 2:15:39 PM	21024
Manganese	22	0.10	*	mg/L	50	9/2/2015 2:13:41 PM	21024
Silver	ND	0.025		mg/L	5	9/2/2015 2:04:24 PM	21024
Zinc	0.54	0.050		mg/L	5	9/2/2015 5:00:13 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.018	0.010	*	mg/L	10	9/1/2015 8:21:36 PM	21024
Lead	0.37	0.010	*	mg/L	20	9/3/2015 6:32:12 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 11:10:00 AM

Lab ID: 1508884-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.010		mg/L	10	9/1/2015 8:21:36 PM	21024
Uranium	0.037	0.0050	*	mg/L	10	9/1/2015 8:21:36 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	0.00025	0.00020		mg/L	1	9/2/2015 1:53:54 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	34	1.0		mg/L	1	8/20/2015 4:22:18 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 4:22:18 PM	20873
Surr: DNOP	121	72-136		%REC	1	8/20/2015 4:22:18 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1.3	0.25		mg/L	5	8/20/2015 12:41:44 AM	A28329
Surr: BFB	98.6	57.8-137		%REC	5	8/20/2015 12:41:44 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 8:42:06 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Carbazole	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 11:10:00 AM

Lab ID: 1508884-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 8:42:06 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 8:42:06 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 8:42:06 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Fluorene	11	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
1-Methylnaphthalene	140	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2-Methylnaphthalene	42	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Naphthalene	42	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 8:42:06 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 11:10:00 AM

Lab ID: 1508884-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	12	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Phenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 8:42:06 PM	20889
Surr: 2-Fluorophenol	67.5	14.9-111		%REC	1	8/24/2015 8:42:06 PM	20889
Surr: Phenol-d5	64.2	11.3-108		%REC	1	8/24/2015 8:42:06 PM	20889
Surr: 2,4,6-Tribromophenol	109	15.7-154		%REC	1	8/24/2015 8:42:06 PM	20889
Surr: Nitrobenzene-d5	90.3	47.8-106		%REC	1	8/24/2015 8:42:06 PM	20889
Surr: 2-Fluorobiphenyl	98.2	21.3-123		%REC	1	8/24/2015 8:42:06 PM	20889
Surr: 4-Terphenyl-d14	123	14.3-135		%REC	1	8/24/2015 8:42:06 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	32	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Toluene	1.6	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Ethylbenzene	54	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Methyl tert-butyl ether (MTBE)	100	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2,4-Trimethylbenzene	47	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,3,5-Trimethylbenzene	9.0	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Naphthalene	53	20		µg/L	10	8/25/2015 1:08:18 PM	a28451
1-Methylnaphthalene	160	40		µg/L	10	8/25/2015 1:08:18 PM	a28451
2-Methylnaphthalene	51	4.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Acetone	ND	10		µg/L	1	8/25/2015 12:14:19 AM	R28420
Bromobenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Bromoform	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Bromomethane	ND	3.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
2-Butanone	ND	10		µg/L	1	8/25/2015 12:14:19 AM	R28420
Carbon disulfide	ND	10		µg/L	1	8/25/2015 12:14:19 AM	R28420
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Chlorobenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Chloroethane	ND	2.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Chloroform	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Chloromethane	ND	3.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 11:10:00 AM

Lab ID: 1508884-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	5.6	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Dibromomethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
2-Hexanone	ND	10		µg/L	1	8/25/2015 12:14:19 AM	R28420
Isopropylbenzene	7.7	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
4-Isopropyltoluene	2.3	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2015 12:14:19 AM	R28420
Methylene Chloride	ND	3.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
n-Butylbenzene	4.4	3.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
n-Propylbenzene	12	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
sec-Butylbenzene	3.4	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Styrene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2015 12:14:19 AM	R28420
Vinyl chloride	ND	1.0		µg/L	1	8/25/2015 12:14:19 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 11:10:00 AM

Lab ID: 1508884-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	19	1.5		µg/L	1	8/25/2015 12:14:19 AM	R28420
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	8/25/2015 12:14:19 AM	R28420
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	1	8/25/2015 12:14:19 AM	R28420
Surr: Dibromofluoromethane	98.7	70-130		%REC	1	8/25/2015 12:14:19 AM	R28420
Surr: Toluene-d8	97.6	70-130		%REC	1	8/25/2015 12:14:19 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:20:00 AM

Lab ID: 1508884-008

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.020	0.010	*	mg/L	10	9/4/2015 2:05:08 PM	C28672
Lead	0.0032	0.0025		mg/L	5	9/2/2015 8:42:43 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:05:08 PM	C28672
Uranium	ND	0.0025		mg/L	5	9/2/2015 8:42:43 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.18	0.10		mg/L	1	8/20/2015 4:24:19 AM	R28334
Chloride	140	10		mg/L	20	8/20/2015 4:36:44 AM	R28334
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2015 4:24:19 AM	R28334
Bromide	0.47	0.10		mg/L	1	8/20/2015 4:24:19 AM	R28334
Nitrogen, Nitrate (As N)	0.17	0.10		mg/L	1	8/20/2015 4:24:19 AM	R28334
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2015 4:24:19 AM	R28334
Sulfate	ND	0.50		mg/L	1	8/20/2015 4:24:19 AM	R28334
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	1.7	0.010		mg/L	5	9/3/2015 8:19:46 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:17:54 PM	C28648
Calcium	150	5.0		mg/L	5	9/3/2015 8:19:46 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 8:17:54 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:17:54 PM	C28648
Iron	14	0.40	*	mg/L	20	9/4/2015 5:10:55 PM	A28671
Magnesium	32	1.0		mg/L	1	9/3/2015 8:17:54 PM	C28648
Manganese	3.2	0.010	*	mg/L	5	9/3/2015 8:19:46 PM	C28648
Potassium	1.3	1.0		mg/L	1	9/3/2015 8:17:54 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:17:54 PM	C28648
Sodium	290	5.0		mg/L	5	9/3/2015 8:19:46 PM	C28648
Zinc	0.020	0.010		mg/L	1	9/3/2015 8:17:54 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	4.4	0.020	*	mg/L	10	9/2/2015 2:17:46 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:24:18 PM	21024
Chromium	0.044	0.0060		mg/L	1	8/31/2015 7:24:18 PM	21024
Copper	0.060	0.0060		mg/L	1	8/31/2015 7:24:18 PM	21024
Iron	64	2.0	*	mg/L	100	9/2/2015 2:19:50 PM	21024
Manganese	6.3	0.020	*	mg/L	10	9/2/2015 2:17:46 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:24:18 PM	21024
Zinc	0.22	0.010		mg/L	1	8/31/2015 7:24:18 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.018	0.0010	*	mg/L	1	8/28/2015 7:47:42 PM	21024
Lead	0.14	0.0050	*	mg/L	10	9/3/2015 6:35:12 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:20:00 AM

Lab ID: 1508884-008

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.0062	0.0050		mg/L	5	9/1/2015 8:24:36 PM	21024
Uranium	0.024	0.00050		mg/L	1	8/28/2015 7:47:42 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 1:55:57 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	27	1.0		mg/L	1	8/20/2015 4:49:18 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 4:49:18 PM	20873
Surr: DNOP	125	72-136		%REC	1	8/20/2015 4:49:18 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	20	1.0		mg/L	20	8/20/2015 1:06:36 AM	A28329
Surr: BFB	92.7	57.8-137		%REC	20	8/20/2015 1:06:36 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 10:33:46 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Carbazole	10	10		µg/L	1	8/24/2015 10:33:46 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:20:00 AM

Lab ID: 1508884-008

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 10:33:46 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 10:33:46 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 10:33:46 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Fluorene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
1-Methylnaphthalene	180	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2-Methylnaphthalene	300	40		µg/L	4	8/25/2015 3:18:18 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Naphthalene	400	40		µg/L	4	8/25/2015 3:18:18 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 10:33:46 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:20:00 AM

Lab ID: 1508884-008

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: JDC			
Phenanthrene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Phenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 10:33:46 PM	20889
Surr: 2-Fluorophenol	74.1	14.9-111		%REC	1	8/24/2015 10:33:46 PM	20889
Surr: Phenol-d5	69.4	11.3-108		%REC	1	8/24/2015 10:33:46 PM	20889
Surr: 2,4,6-Tribromophenol	93.1	15.7-154		%REC	1	8/24/2015 10:33:46 PM	20889
Surr: Nitrobenzene-d5	93.0	47.8-106		%REC	1	8/24/2015 10:33:46 PM	20889
Surr: 2-Fluorobiphenyl	95.7	21.3-123		%REC	1	8/24/2015 10:33:46 PM	20889
Surr: 4-Terphenyl-d14	125	14.3-135		%REC	1	8/24/2015 10:33:46 PM	20889
EPA METHOD 8260B: VOLATILES				Analyst: BCN			
Benzene	2400	100		µg/L	100	8/25/2015 12:43:02 AM	R28420
Toluene	15	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Ethylbenzene	740	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Methyl tert-butyl ether (MTBE)	8800	100		µg/L	100	8/25/2015 12:43:02 AM	R28420
1,2,4-Trimethylbenzene	520	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,3,5-Trimethylbenzene	73	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Naphthalene	490	20		µg/L	10	8/25/2015 1:11:53 AM	R28420
1-Methylnaphthalene	230	40		µg/L	10	8/25/2015 1:11:53 AM	R28420
2-Methylnaphthalene	380	40		µg/L	10	8/25/2015 1:11:53 AM	R28420
Acetone	ND	100		µg/L	10	8/25/2015 1:11:53 AM	R28420
Bromobenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Bromodichloromethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Bromoform	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Bromomethane	ND	30		µg/L	10	8/25/2015 1:11:53 AM	R28420
2-Butanone	ND	100		µg/L	10	8/25/2015 1:11:53 AM	R28420
Carbon disulfide	ND	100		µg/L	10	8/25/2015 1:11:53 AM	R28420
Carbon Tetrachloride	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Chlorobenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Chloroethane	ND	20		µg/L	10	8/25/2015 1:11:53 AM	R28420
Chloroform	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Chloromethane	ND	30		µg/L	10	8/25/2015 1:11:53 AM	R28420
2-Chlorotoluene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
4-Chlorotoluene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:20:00 AM

Lab ID: 1508884-008

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: BCN			
cis-1,2-DCE	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/25/2015 1:11:53 AM	R28420
Dibromochloromethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Dibromomethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2-Dichlorobenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,3-Dichlorobenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,4-Dichlorobenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Dichlorodifluoromethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,1-Dichloroethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,1-Dichloroethene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2-Dichloropropane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,3-Dichloropropane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
2,2-Dichloropropane	ND	20		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,1-Dichloropropene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Hexachlorobutadiene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
2-Hexanone	ND	100		µg/L	10	8/25/2015 1:11:53 AM	R28420
Isopropylbenzene	31	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
4-Isopropyltoluene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
4-Methyl-2-pentanone	ND	100		µg/L	10	8/25/2015 1:11:53 AM	R28420
Methylene Chloride	ND	30		µg/L	10	8/25/2015 1:11:53 AM	R28420
n-Butylbenzene	ND	30		µg/L	10	8/25/2015 1:11:53 AM	R28420
n-Propylbenzene	80	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
sec-Butylbenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Styrene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
tert-Butylbenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/25/2015 1:11:53 AM	R28420
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
trans-1,2-DCE	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,1,1-Trichloroethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,1,2-Trichloroethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Trichloroethene (TCE)	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
Trichlorofluoromethane	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420
1,2,3-Trichloropropane	ND	20		µg/L	10	8/25/2015 1:11:53 AM	R28420
Vinyl chloride	ND	10		µg/L	10	8/25/2015 1:11:53 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:20:00 AM

Lab ID: 1508884-008

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	450	15		µg/L	10	8/25/2015 1:11:53 AM	R28420
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	10	8/25/2015 1:11:53 AM	R28420
Surr: 4-Bromofluorobenzene	87.5	70-130		%REC	10	8/25/2015 1:11:53 AM	R28420
Surr: Dibromofluoromethane	100	70-130		%REC	10	8/25/2015 1:11:53 AM	R28420
Surr: Toluene-d8	96.5	70-130		%REC	10	8/25/2015 1:11:53 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:48:00 AM

Lab ID: 1508884-009

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:08:11 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:45:46 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:08:11 PM	C28672
Uranium	0.017	0.0025		mg/L	5	9/2/2015 8:45:46 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.50	0.10		mg/L	1	8/31/2015 1:16:34 PM	R28586
Chloride	74	10		mg/L	20	8/20/2015 5:57:22 AM	R28337
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2015 5:44:57 AM	R28337
Bromide	0.47	0.10		mg/L	1	8/20/2015 5:44:57 AM	R28337
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/20/2015 5:44:57 AM	R28337
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2015 5:44:57 AM	R28337
Sulfate	160	10		mg/L	20	8/20/2015 5:57:22 AM	R28337
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.097	0.0020		mg/L	1	9/3/2015 8:21:41 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:21:41 PM	C28648
Calcium	94	1.0		mg/L	1	9/3/2015 8:21:41 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 8:21:41 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:21:41 PM	C28648
Iron	0.49	0.020	*	mg/L	1	9/3/2015 8:21:41 PM	C28648
Magnesium	19	1.0		mg/L	1	9/3/2015 8:21:41 PM	C28648
Manganese	2.8	0.010	*	mg/L	5	9/3/2015 8:23:43 PM	C28648
Potassium	ND	1.0		mg/L	1	9/3/2015 8:21:41 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:21:41 PM	C28648
Sodium	260	5.0		mg/L	5	9/3/2015 8:23:43 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 8:21:41 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.20	0.0020		mg/L	1	8/31/2015 7:33:07 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:33:07 PM	21024
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:33:07 PM	21024
Copper	0.0097	0.0060		mg/L	1	8/31/2015 7:33:07 PM	21024
Iron	1.7	0.10	*	mg/L	5	9/8/2015 12:37:34 PM	21024
Manganese	2.9	0.010	*	mg/L	5	9/2/2015 2:21:45 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:33:07 PM	21024
Zinc	0.011	0.010		mg/L	1	8/31/2015 7:33:07 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0052	0.0010		mg/L	1	8/28/2015 7:52:50 PM	21024
Lead	0.0037	0.00050		mg/L	1	8/28/2015 7:52:50 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:48:00 AM

Lab ID: 1508884-009

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0050		mg/L	5	9/1/2015 8:27:37 PM	21024
Uranium	0.018	0.00050		mg/L	1	8/28/2015 7:52:50 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 1:57:59 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	8/20/2015 5:16:39 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 5:16:39 PM	20873
Surr: DNOP	120	72-136		%REC	1	8/20/2015 5:16:39 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1.7	0.050		mg/L	1	8/20/2015 1:31:25 AM	A28329
Surr: BFB	220	57.8-137	S	%REC	1	8/20/2015 1:31:25 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 11:04:19 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Carbazole	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:48:00 AM

Lab ID: 1508884-009

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 11:04:19 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 11:04:19 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 11:04:19 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Fluorene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Naphthalene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 11:04:19 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:48:00 AM

Lab ID: 1508884-009

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Phenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 11:04:19 PM	20889
Surr: 2-Fluorophenol	61.4	14.9-111		%REC	1	8/24/2015 11:04:19 PM	20889
Surr: Phenol-d5	58.9	11.3-108		%REC	1	8/24/2015 11:04:19 PM	20889
Surr: 2,4,6-Tribromophenol	99.0	15.7-154		%REC	1	8/24/2015 11:04:19 PM	20889
Surr: Nitrobenzene-d5	83.4	47.8-106		%REC	1	8/24/2015 11:04:19 PM	20889
Surr: 2-Fluorobiphenyl	84.5	21.3-123		%REC	1	8/24/2015 11:04:19 PM	20889
Surr: 4-Terphenyl-d14	124	14.3-135		%REC	1	8/24/2015 11:04:19 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	36	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Toluene	1.1	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Ethylbenzene	300	10		µg/L	10	8/25/2015 1:40:40 AM	R28420
Methyl tert-butyl ether (MTBE)	640	10		µg/L	10	8/25/2015 1:40:40 AM	R28420
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Naphthalene	ND	2.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Acetone	ND	10		µg/L	1	8/25/2015 2:09:30 AM	R28420
Bromobenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Bromoform	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Bromomethane	ND	3.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
2-Butanone	ND	10		µg/L	1	8/25/2015 2:09:30 AM	R28420
Carbon disulfide	ND	10		µg/L	1	8/25/2015 2:09:30 AM	R28420
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Chlorobenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Chloroethane	ND	2.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Chloroform	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Chloromethane	ND	3.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:48:00 AM

Lab ID: 1508884-009

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Dibromomethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
2-Hexanone	ND	10		µg/L	1	8/25/2015 2:09:30 AM	R28420
Isopropylbenzene	19	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
4-Isopropyltoluene	1.9	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2015 2:09:30 AM	R28420
Methylene Chloride	ND	3.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
n-Propylbenzene	34	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
sec-Butylbenzene	2.6	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Styrene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2015 2:09:30 AM	R28420
Vinyl chloride	ND	1.0		µg/L	1	8/25/2015 2:09:30 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 10:48:00 AM

Lab ID: 1508884-009

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	1.8	1.5		µg/L	1	8/25/2015 2:09:30 AM	R28420
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	8/25/2015 2:09:30 AM	R28420
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	8/25/2015 2:09:30 AM	R28420
Surr: Dibromofluoromethane	97.2	70-130		%REC	1	8/25/2015 2:09:30 AM	R28420
Surr: Toluene-d8	98.8	70-130		%REC	1	8/25/2015 2:09:30 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 12:55:00 PM

Lab ID: 1508884-010

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:11:14 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:48:50 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:11:14 PM	C28672
Uranium	0.0039	0.0025		mg/L	5	9/2/2015 8:48:50 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.43	0.10		mg/L	1	8/19/2015 7:38:27 PM	R28338
Chloride	170	10		mg/L	20	8/19/2015 7:50:51 PM	R28338
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/19/2015 7:38:27 PM	R28338
Bromide	0.26	0.10		mg/L	1	8/19/2015 7:38:27 PM	R28338
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/19/2015 7:38:27 PM	R28338
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2015 7:38:27 PM	R28338
Sulfate	130	10		mg/L	20	8/19/2015 7:50:51 PM	R28338
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.45	0.0020		mg/L	1	9/3/2015 8:25:48 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:25:48 PM	C28648
Calcium	160	5.0		mg/L	5	9/3/2015 8:27:37 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 8:25:48 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:25:48 PM	C28648
Iron	2.4	0.10	*	mg/L	5	9/3/2015 8:27:37 PM	C28648
Magnesium	31	1.0		mg/L	1	9/3/2015 8:25:48 PM	C28648
Manganese	4.0	0.010	*	mg/L	5	9/3/2015 8:27:37 PM	C28648
Potassium	ND	1.0		mg/L	1	9/3/2015 8:25:48 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:25:48 PM	C28648
Sodium	250	5.0		mg/L	5	9/3/2015 8:27:37 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 8:25:48 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.81	0.0020		mg/L	1	8/31/2015 7:38:24 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:38:24 PM	21024
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:38:24 PM	21024
Copper	0.0089	0.0060		mg/L	1	8/31/2015 7:38:24 PM	21024
Iron	7.7	0.20	*	mg/L	10	9/2/2015 2:27:37 PM	21024
Manganese	3.7	0.020	*	mg/L	10	9/2/2015 2:27:37 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:38:24 PM	21024
Zinc	0.027	0.010		mg/L	1	8/31/2015 7:38:24 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0042	0.0010		mg/L	1	8/28/2015 7:57:58 PM	21024
Lead	0.015	0.00050		mg/L	1	8/28/2015 7:57:58 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 12:55:00 PM

Lab ID: 1508884-010

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0050		mg/L	5	9/1/2015 8:30:37 PM	21024
Uranium	0.0053	0.00050		mg/L	1	8/28/2015 7:57:58 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 2:00:02 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	4.7	1.0		mg/L	1	8/20/2015 5:43:53 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 5:43:53 PM	20873
Surr: DNOP	118	72-136		%REC	1	8/20/2015 5:43:53 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	7.1	0.50		mg/L	10	8/20/2015 1:56:12 AM	A28329
Surr: BFB	91.0	57.8-137		%REC	10	8/20/2015 1:56:12 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Acenaphthylene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Aniline	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Anthracene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Azobenzene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Benz(a)anthracene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Benzo(a)pyrene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Benzo(b)fluoranthene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Benzo(k)fluoranthene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Benzoic acid	ND	20		µg/L	1	8/27/2015 12:23:12 PM	20930
Benzyl alcohol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Butyl benzyl phthalate	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Carbazole	16	10		µg/L	1	8/27/2015 12:23:12 PM	20930
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
4-Chloroaniline	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2-Chloronaphthalene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2-Chlorophenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Chrysene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 12:55:00 PM

Lab ID: 1508884-010

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Di-n-octyl phthalate	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Dibenzofuran	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
1,2-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
1,3-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
1,4-Dichlorobenzene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Diethyl phthalate	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Dimethyl phthalate	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2,4-Dichlorophenol	ND	20		µg/L	1	8/27/2015 12:23:12 PM	20930
2,4-Dimethylphenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/27/2015 12:23:12 PM	20930
2,4-Dinitrophenol	ND	20		µg/L	1	8/27/2015 12:23:12 PM	20930
2,4-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2,6-Dinitrotoluene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Fluoranthene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Fluorene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Hexachlorobenzene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Hexachlorobutadiene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Hexachloroethane	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Isophorone	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
1-Methylnaphthalene	80	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2-Methylnaphthalene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2-Methylphenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
3+4-Methylphenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
N-Nitrosodimethylamine	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Naphthalene	23	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2-Nitroaniline	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
3-Nitroaniline	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
4-Nitroaniline	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Nitrobenzene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2-Nitrophenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
4-Nitrophenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Pentachlorophenol	ND	20		µg/L	1	8/27/2015 12:23:12 PM	20930

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 12:55:00 PM

Lab ID: 1508884-010

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	11	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Phenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Pyrene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Pyridine	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/27/2015 12:23:12 PM	20930
Surr: 2-Fluorophenol	8.13	14.9-111	S	%REC	1	8/27/2015 12:23:12 PM	20930
Surr: Phenol-d5	5.25	11.3-108	S	%REC	1	8/27/2015 12:23:12 PM	20930
Surr: 2,4,6-Tribromophenol	47.4	15.7-154		%REC	1	8/27/2015 12:23:12 PM	20930
Surr: Nitrobenzene-d5	78.0	47.8-106		%REC	1	8/27/2015 12:23:12 PM	20930
Surr: 2-Fluorobiphenyl	68.1	21.3-123		%REC	1	8/27/2015 12:23:12 PM	20930
Surr: 4-Terphenyl-d14	56.1	14.3-135		%REC	1	8/27/2015 12:23:12 PM	20930
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	1200	50		µg/L	50	8/25/2015 2:38:26 AM	R28420
Toluene	35	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Ethylbenzene	200	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Methyl tert-butyl ether (MTBE)	600	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2,4-Trimethylbenzene	50	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Naphthalene	29	10		µg/L	5	8/25/2015 3:07:14 AM	R28420
1-Methylnaphthalene	80	20		µg/L	5	8/25/2015 3:07:14 AM	R28420
2-Methylnaphthalene	ND	20		µg/L	5	8/25/2015 3:07:14 AM	R28420
Acetone	ND	50		µg/L	5	8/25/2015 3:07:14 AM	R28420
Bromobenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Bromodichloromethane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Bromoform	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Bromomethane	ND	15		µg/L	5	8/25/2015 3:07:14 AM	R28420
2-Butanone	ND	50		µg/L	5	8/25/2015 3:07:14 AM	R28420
Carbon disulfide	ND	50		µg/L	5	8/25/2015 3:07:14 AM	R28420
Carbon Tetrachloride	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Chlorobenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Chloroethane	ND	10		µg/L	5	8/25/2015 3:07:14 AM	R28420
Chloroform	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Chloromethane	ND	15		µg/L	5	8/25/2015 3:07:14 AM	R28420
2-Chlorotoluene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
4-Chlorotoluene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 12:55:00 PM

Lab ID: 1508884-010

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	27	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/25/2015 3:07:14 AM	R28420
Dibromochloromethane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Dibromomethane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,1-Dichloroethane	26	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,1-Dichloroethene	36	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2-Dichloropropane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,3-Dichloropropane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
2,2-Dichloropropane	ND	10		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,1-Dichloropropene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Hexachlorobutadiene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
2-Hexanone	ND	50		µg/L	5	8/25/2015 3:07:14 AM	R28420
Isopropylbenzene	17	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
4-Isopropyltoluene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
4-Methyl-2-pentanone	ND	50		µg/L	5	8/25/2015 3:07:14 AM	R28420
Methylene Chloride	ND	15		µg/L	5	8/25/2015 3:07:14 AM	R28420
n-Butylbenzene	ND	15		µg/L	5	8/25/2015 3:07:14 AM	R28420
n-Propylbenzene	29	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
sec-Butylbenzene	5.4	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Styrene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
tert-Butylbenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/25/2015 3:07:14 AM	R28420
Tetrachloroethene (PCE)	6.2	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
trans-1,2-DCE	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,1,1-Trichloroethane	52	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Trichloroethene (TCE)	5.9	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
Trichlorofluoromethane	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420
1,2,3-Trichloropropane	ND	10		µg/L	5	8/25/2015 3:07:14 AM	R28420
Vinyl chloride	ND	5.0		µg/L	5	8/25/2015 3:07:14 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 12:55:00 PM

Lab ID: 1508884-010

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	63	7.5		µg/L	5	8/25/2015 3:07:14 AM	R28420
Surr: 1,2-Dichloroethane-d4	88.1	70-130		%REC	5	8/25/2015 3:07:14 AM	R28420
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	5	8/25/2015 3:07:14 AM	R28420
Surr: Dibromofluoromethane	97.6	70-130		%REC	5	8/25/2015 3:07:14 AM	R28420
Surr: Toluene-d8	98.6	70-130		%REC	5	8/25/2015 3:07:14 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 1:35:00 PM

Lab ID: 1508884-011

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:20:27 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:51:53 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:20:27 PM	C28672
Uranium	0.0034	0.0025		mg/L	5	9/2/2015 8:51:53 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.86	0.10		mg/L	1	8/19/2015 8:03:16 PM	R28338
Chloride	300	10		mg/L	20	8/19/2015 8:15:41 PM	R28338
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/19/2015 8:03:16 PM	R28338
Bromide	0.33	0.10		mg/L	1	8/19/2015 8:03:16 PM	R28338
Nitrogen, Nitrate (As N)	0.32	0.10		mg/L	1	8/19/2015 8:03:16 PM	R28338
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2015 8:03:16 PM	R28338
Sulfate	4.2	0.50		mg/L	1	8/19/2015 8:03:16 PM	R28338
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	2.5	0.010	*	mg/L	5	9/3/2015 8:31:35 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:29:45 PM	C28648
Calcium	120	5.0		mg/L	5	9/3/2015 8:31:35 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 8:29:45 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:29:45 PM	C28648
Iron	8.7	0.20	*	mg/L	10	9/4/2015 5:18:32 PM	A28671
Magnesium	31	1.0		mg/L	1	9/3/2015 8:29:45 PM	C28648
Manganese	1.6	0.010	*	mg/L	5	9/3/2015 8:31:35 PM	C28648
Potassium	1.1	1.0		mg/L	1	9/3/2015 8:29:45 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:29:45 PM	C28648
Sodium	390	5.0		mg/L	5	9/3/2015 8:31:35 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 8:29:45 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	3.0	0.010	*	mg/L	5	9/2/2015 2:31:59 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:40:14 PM	21024
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:40:14 PM	21024
Copper	0.0061	0.0060		mg/L	1	8/31/2015 7:40:14 PM	21024
Iron	17	1.0	*	mg/L	50	9/2/2015 2:41:27 PM	21024
Manganese	1.9	0.010	*	mg/L	5	9/2/2015 2:31:59 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:40:14 PM	21024
Zinc	0.025	0.010		mg/L	1	8/31/2015 7:40:14 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0085	0.0010		mg/L	1	8/28/2015 8:03:07 PM	21024
Lead	0.017	0.00050	*	mg/L	1	8/28/2015 8:03:07 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 1:35:00 PM

Lab ID: 1508884-011

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.010		mg/L	10	9/1/2015 8:33:38 PM	21024
Uranium	0.0042	0.00050		mg/L	1	8/28/2015 8:03:07 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 2:02:26 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	3.7	1.0		mg/L	1	8/20/2015 6:11:13 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 6:11:13 PM	20873
Surr: DNOP	122	72-136		%REC	1	8/20/2015 6:11:13 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.8	1.0		mg/L	20	8/20/2015 2:20:54 AM	A28329
Surr: BFB	88.4	57.8-137		%REC	20	8/20/2015 2:20:54 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Aniline	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Anthracene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Azobenzene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Benzoic acid	ND	20		µg/L	1	8/24/2015 11:34:48 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Carbazole	21	10		µg/L	1	8/24/2015 11:34:48 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Chrysene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 1:35:00 PM

Lab ID: 1508884-011

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/24/2015 11:34:48 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/24/2015 11:34:48 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/24/2015 11:34:48 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Fluoranthene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Fluorene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Isophorone	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
1-Methylnaphthalene	150	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2-Methylnaphthalene	96	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Naphthalene	260	20		µg/L	2	8/25/2015 3:48:25 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/24/2015 11:34:48 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 1:35:00 PM

Lab ID: 1508884-011

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Phenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Pyrene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Pyridine	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/24/2015 11:34:48 PM	20889
Surr: 2-Fluorophenol	75.4	14.9-111		%REC	1	8/24/2015 11:34:48 PM	20889
Surr: Phenol-d5	76.5	11.3-108		%REC	1	8/24/2015 11:34:48 PM	20889
Surr: 2,4,6-Tribromophenol	113	15.7-154		%REC	1	8/24/2015 11:34:48 PM	20889
Surr: Nitrobenzene-d5	95.4	47.8-106		%REC	1	8/24/2015 11:34:48 PM	20889
Surr: 2-Fluorobiphenyl	109	21.3-123		%REC	1	8/24/2015 11:34:48 PM	20889
Surr: 4-Terphenyl-d14	138	14.3-135	S	%REC	1	8/24/2015 11:34:48 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	320	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Toluene	11	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Ethylbenzene	430	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Methyl tert-butyl ether (MTBE)	1400	50		µg/L	50	8/25/2015 3:36:08 AM	R28420
1,2,4-Trimethylbenzene	270	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,3,5-Trimethylbenzene	26	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Naphthalene	240	10		µg/L	5	8/25/2015 4:05:05 AM	R28420
1-Methylnaphthalene	140	20		µg/L	5	8/25/2015 4:05:05 AM	R28420
2-Methylnaphthalene	85	20		µg/L	5	8/25/2015 4:05:05 AM	R28420
Acetone	ND	50		µg/L	5	8/25/2015 4:05:05 AM	R28420
Bromobenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Bromodichloromethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Bromoform	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Bromomethane	ND	15		µg/L	5	8/25/2015 4:05:05 AM	R28420
2-Butanone	ND	50		µg/L	5	8/25/2015 4:05:05 AM	R28420
Carbon disulfide	ND	50		µg/L	5	8/25/2015 4:05:05 AM	R28420
Carbon Tetrachloride	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Chlorobenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Chloroethane	ND	10		µg/L	5	8/25/2015 4:05:05 AM	R28420
Chloroform	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Chloromethane	ND	15		µg/L	5	8/25/2015 4:05:05 AM	R28420
2-Chlorotoluene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
4-Chlorotoluene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 1:35:00 PM

Lab ID: 1508884-011

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	13	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/25/2015 4:05:05 AM	R28420
Dibromochloromethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Dibromomethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,1-Dichloroethane	7.5	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,1-Dichloroethene	16	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2-Dichloropropane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,3-Dichloropropane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
2,2-Dichloropropane	ND	10		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,1-Dichloropropene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Hexachlorobutadiene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
2-Hexanone	ND	50		µg/L	5	8/25/2015 4:05:05 AM	R28420
Isopropylbenzene	16	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
4-Isopropyltoluene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
4-Methyl-2-pentanone	ND	50		µg/L	5	8/25/2015 4:05:05 AM	R28420
Methylene Chloride	ND	15		µg/L	5	8/25/2015 4:05:05 AM	R28420
n-Butylbenzene	ND	15		µg/L	5	8/25/2015 4:05:05 AM	R28420
n-Propylbenzene	21	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
sec-Butylbenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Styrene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
tert-Butylbenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/25/2015 4:05:05 AM	R28420
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
trans-1,2-DCE	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
Trichlorofluoromethane	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420
1,2,3-Trichloropropane	ND	10		µg/L	5	8/25/2015 4:05:05 AM	R28420
Vinyl chloride	ND	5.0		µg/L	5	8/25/2015 4:05:05 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 1:35:00 PM

Lab ID: 1508884-011

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	550	7.5		µg/L	5	8/25/2015 4:05:05 AM	R28420
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	5	8/25/2015 4:05:05 AM	R28420
Surr: 4-Bromofluorobenzene	85.4	70-130		%REC	5	8/25/2015 4:05:05 AM	R28420
Surr: Dibromofluoromethane	97.5	70-130		%REC	5	8/25/2015 4:05:05 AM	R28420
Surr: Toluene-d8	98.2	70-130		%REC	5	8/25/2015 4:05:05 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 2:35:00 PM

Lab ID: 1508884-012

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:23:31 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:54:56 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:23:31 PM	C28672
Uranium	0.0034	0.0025		mg/L	5	9/2/2015 8:54:56 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	2.0		mg/L	20	8/19/2015 9:05:18 PM	R28338
Chloride	1200	50		mg/L	100	8/31/2015 1:28:58 PM	R28586
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/19/2015 9:05:18 PM	R28338
Bromide	0.26	0.10		mg/L	1	8/19/2015 8:52:54 PM	R28338
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/19/2015 8:52:54 PM	R28338
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2015 8:52:54 PM	R28338
Sulfate	1.2	0.50		mg/L	1	8/19/2015 8:52:54 PM	R28338
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	2.0	0.010		mg/L	5	9/3/2015 8:35:25 PM	C28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:33:31 PM	C28648
Calcium	170	5.0		mg/L	5	9/3/2015 8:35:25 PM	C28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 8:33:31 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:33:31 PM	C28648
Iron	4.0	0.10	*	mg/L	5	9/3/2015 8:35:25 PM	C28648
Magnesium	48	1.0		mg/L	1	9/3/2015 8:33:31 PM	C28648
Manganese	4.0	0.010	*	mg/L	5	9/3/2015 8:35:25 PM	C28648
Potassium	1.5	1.0		mg/L	1	9/3/2015 8:33:31 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:33:31 PM	C28648
Sodium	810	10		mg/L	10	9/4/2015 5:20:29 PM	A28671
Zinc	ND	0.010		mg/L	1	9/3/2015 8:33:31 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	2.4	0.010	*	mg/L	5	9/2/2015 2:45:38 PM	21024
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:42:04 PM	21024
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:42:04 PM	21024
Copper	ND	0.0060		mg/L	1	8/31/2015 7:42:04 PM	21024
Iron	14	1.0	*	mg/L	50	9/2/2015 2:47:29 PM	21024
Manganese	4.0	0.010	*	mg/L	5	9/2/2015 2:45:38 PM	21024
Silver	ND	0.0050		mg/L	1	8/31/2015 7:42:04 PM	21024
Zinc	0.024	0.010		mg/L	1	8/31/2015 7:42:04 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0091	0.0010		mg/L	1	8/28/2015 8:08:15 PM	21024
Lead	0.0071	0.00050		mg/L	1	8/28/2015 8:08:15 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 2:35:00 PM

Lab ID: 1508884-012

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.0030	0.0010		mg/L	1	8/28/2015 8:08:15 PM	21024
Uranium	0.0026	0.00050		mg/L	1	8/28/2015 8:08:15 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 2:08:45 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	1.6	1.0		mg/L	1	8/20/2015 6:38:36 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 6:38:36 PM	20873
Surr: DNOP	123	72-136		%REC	1	8/20/2015 6:38:36 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	36	5.0		mg/L	100	8/20/2015 2:45:48 AM	A28329
Surr: BFB	85.9	57.8-137		%REC	100	8/20/2015 2:45:48 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Benzoic acid	ND	29	D	µg/L	1	8/25/2015 6:18:52 PM	20962
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
4-Chloro-3-methylphenol	ND	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2-Chlorophenol	ND	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 2:35:00 PM

Lab ID: 1508884-012

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2,4-Dichlorophenol	ND	29	D	µg/L	1	8/25/2015 6:18:52 PM	20962
2,4-Dimethylphenol	15	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
4,6-Dinitro-2-methylphenol	ND	29	D	µg/L	1	8/25/2015 6:18:52 PM	20962
2,4-Dinitrophenol	ND	29	D	µg/L	1	8/25/2015 6:18:52 PM	20962
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
1-Methylnaphthalene	10	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2-Methylphenol	49	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
3+4-Methylphenol	29	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Naphthalene	17	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2-Nitrophenol	ND	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
4-Nitrophenol	ND	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
Pentachlorophenol	ND	29	D	µg/L	1	8/25/2015 6:18:52 PM	20962

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 2:35:00 PM

Lab ID: 1508884-012

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Phenol	27	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
Pyrene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 12:05:13 AM	20889
2,4,5-Trichlorophenol	ND	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
2,4,6-Trichlorophenol	ND	14	D	µg/L	1	8/25/2015 6:18:52 PM	20962
Surr: 2-Fluorophenol	23.3	14.9-111	D	%REC	1	8/25/2015 6:18:52 PM	20962
Surr: Phenol-d5	20.8	11.3-108	D	%REC	1	8/25/2015 6:18:52 PM	20962
Surr: 2,4,6-Tribromophenol	56.3	15.7-154	D	%REC	1	8/25/2015 6:18:52 PM	20962
Surr: Nitrobenzene-d5	52.8	47.8-106		%REC	1	8/25/2015 12:05:13 AM	20889
Surr: 2-Fluorobiphenyl	55.4	21.3-123		%REC	1	8/25/2015 12:05:13 AM	20889
Surr: 4-Terphenyl-d14	102	14.3-135		%REC	1	8/25/2015 12:05:13 AM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	3700	200		µg/L	200	8/25/2015 4:33:56 AM	R28420
Toluene	4200	200		µg/L	200	8/25/2015 4:33:56 AM	R28420
Ethylbenzene	500	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Methyl tert-butyl ether (MTBE)	82	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2,4-Trimethylbenzene	230	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,3,5-Trimethylbenzene	46	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Naphthalene	54	40		µg/L	20	8/25/2015 5:02:42 AM	R28420
1-Methylnaphthalene	ND	80		µg/L	20	8/25/2015 5:02:42 AM	R28420
2-Methylnaphthalene	ND	80		µg/L	20	8/25/2015 5:02:42 AM	R28420
Acetone	ND	200		µg/L	20	8/25/2015 5:02:42 AM	R28420
Bromobenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Bromodichloromethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Bromoform	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Bromomethane	ND	60		µg/L	20	8/25/2015 5:02:42 AM	R28420
2-Butanone	ND	200		µg/L	20	8/25/2015 5:02:42 AM	R28420
Carbon disulfide	ND	200		µg/L	20	8/25/2015 5:02:42 AM	R28420
Carbon Tetrachloride	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Chlorobenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Chloroethane	ND	40		µg/L	20	8/25/2015 5:02:42 AM	R28420
Chloroform	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Chloromethane	ND	60		µg/L	20	8/25/2015 5:02:42 AM	R28420
2-Chlorotoluene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
4-Chlorotoluene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 2:35:00 PM

Lab ID: 1508884-012

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
cis-1,3-Dichloropropene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	8/25/2015 5:02:42 AM	R28420
Dibromochloromethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Dibromomethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2-Dichlorobenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,3-Dichlorobenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,4-Dichlorobenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Dichlorodifluoromethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,1-Dichloroethane	63	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,1-Dichloroethene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2-Dichloropropane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,3-Dichloropropane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
2,2-Dichloropropane	ND	40		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,1-Dichloropropene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Hexachlorobutadiene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
2-Hexanone	ND	200		µg/L	20	8/25/2015 5:02:42 AM	R28420
Isopropylbenzene	22	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
4-Isopropyltoluene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
4-Methyl-2-pentanone	ND	200		µg/L	20	8/25/2015 5:02:42 AM	R28420
Methylene Chloride	ND	60		µg/L	20	8/25/2015 5:02:42 AM	R28420
n-Butylbenzene	ND	60		µg/L	20	8/25/2015 5:02:42 AM	R28420
n-Propylbenzene	51	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
sec-Butylbenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Styrene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
tert-Butylbenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	8/25/2015 5:02:42 AM	R28420
Tetrachloroethene (PCE)	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
trans-1,2-DCE	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
trans-1,3-Dichloropropene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2,3-Trichlorobenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2,4-Trichlorobenzene	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,1,1-Trichloroethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,1,2-Trichloroethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Trichloroethene (TCE)	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
Trichlorofluoromethane	ND	20		µg/L	20	8/25/2015 5:02:42 AM	R28420
1,2,3-Trichloropropane	ND	40		µg/L	20	8/25/2015 5:02:42 AM	R28420
Vinyl chloride	49	20		µg/L	20	8/25/2015 5:02:42 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 2:35:00 PM

Lab ID: 1508884-012

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	1500	30		µg/L	20	8/25/2015 5:02:42 AM	R28420
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%REC	20	8/25/2015 5:02:42 AM	R28420
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	20	8/25/2015 5:02:42 AM	R28420
Surr: Dibromofluoromethane	94.0	70-130		%REC	20	8/25/2015 5:02:42 AM	R28420
Surr: Toluene-d8	99.1	70-130		%REC	20	8/25/2015 5:02:42 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 3:40:00 PM

Lab ID: 1508884-013

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	9/4/2015 2:26:34 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 8:58:00 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:26:34 PM	C28672
Uranium	ND	0.0025		mg/L	5	9/2/2015 8:58:00 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	5.0		mg/L	50	8/31/2015 1:41:23 PM	R28586
Chloride	390	10		mg/L	20	8/19/2015 9:30:07 PM	R28338
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/19/2015 9:17:43 PM	R28338
Bromide	0.74	0.50		mg/L	5	8/19/2015 9:17:43 PM	R28338
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/19/2015 9:17:43 PM	R28338
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/19/2015 9:17:43 PM	R28338
Sulfate	ND	2.5		mg/L	5	8/19/2015 9:17:43 PM	R28338
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	15	0.040	*	mg/L	20	9/4/2015 5:22:28 PM	A28671
Cadmium	ND	0.0020		mg/L	1	9/3/2015 8:45:04 PM	C28648
Calcium	690	20		mg/L	20	9/4/2015 5:22:28 PM	A28671
Chromium	0.013	0.0060		mg/L	1	9/3/2015 8:45:04 PM	C28648
Copper	ND	0.0060		mg/L	1	9/3/2015 8:45:04 PM	C28648
Iron	64	2.0	*	mg/L	100	9/4/2015 5:24:08 PM	A28671
Magnesium	180	5.0		mg/L	5	9/3/2015 8:47:02 PM	C28648
Manganese	22	0.20	*	mg/L	100	9/4/2015 5:24:08 PM	A28671
Potassium	1.5	1.0		mg/L	1	9/3/2015 8:45:04 PM	C28648
Silver	ND	0.0050		mg/L	1	9/3/2015 8:45:04 PM	C28648
Sodium	430	5.0		mg/L	5	9/3/2015 8:47:02 PM	C28648
Zinc	ND	0.010		mg/L	1	9/3/2015 8:45:04 PM	C28648
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	45	0.10	*	mg/L	50	9/2/2015 2:51:25 PM	21024
Cadmium	ND	0.010		mg/L	5	9/2/2015 2:49:31 PM	21024
Chromium	0.20	0.030	*	mg/L	5	9/2/2015 2:49:31 PM	21024
Copper	0.26	0.030		mg/L	5	9/2/2015 2:49:31 PM	21024
Iron	240	10	*	mg/L	500	9/2/2015 2:53:28 PM	21024
Manganese	50	1.0	*	mg/L	500	9/2/2015 2:53:28 PM	21024
Silver	ND	0.025		mg/L	5	9/2/2015 2:49:31 PM	21024
Zinc	0.49	0.050		mg/L	5	9/2/2015 5:02:01 PM	21024
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.038	0.010	*	mg/L	10	9/1/2015 8:36:38 PM	21024
Lead	0.58	0.025	*	mg/L	50	9/3/2015 6:38:13 PM	21024

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 3:40:00 PM

Lab ID: 1508884-013

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.050		mg/L	50	9/3/2015 6:38:13 PM	21024
Uranium	0.063	0.0050	*	mg/L	10	9/1/2015 8:36:38 PM	21024
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	0.00030	0.00020		mg/L	1	9/2/2015 2:10:50 PM	21097
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	55	1.0		mg/L	1	8/20/2015 7:05:53 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/20/2015 7:05:53 PM	20873
Surr: DNOP	123	72-136		%REC	1	8/20/2015 7:05:53 PM	20873
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	130	5.0	P	mg/L	100	8/20/2015 3:10:38 AM	A28329
Surr: BFB	88.3	57.8-137	P	%REC	100	8/20/2015 3:10:38 AM	A28329
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Aniline	60	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 12:35:36 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 3:40:00 PM

Lab ID: 1508884-013

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 12:35:36 AM	20889
2,4-Dimethylphenol	85	10		µg/L	1	8/25/2015 12:35:36 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 12:35:36 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 12:35:36 AM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
1-Methylnaphthalene	140	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2-Methylnaphthalene	130	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2-Methylphenol	450	40		µg/L	4	8/25/2015 4:18:33 PM	20889
3+4-Methylphenol	650	40		µg/L	4	8/25/2015 4:18:33 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Naphthalene	250	40		µg/L	4	8/25/2015 4:18:33 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 12:35:36 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 3:40:00 PM

Lab ID: 1508884-013

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Phenol	410	40		µg/L	4	8/25/2015 4:18:33 PM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 12:35:36 AM	20889
Surr: 2-Fluorophenol	84.5	14.9-111		%REC	1	8/25/2015 12:35:36 AM	20889
Surr: Phenol-d5	68.0	11.3-108		%REC	1	8/25/2015 12:35:36 AM	20889
Surr: 2,4,6-Tribromophenol	120	15.7-154		%REC	1	8/25/2015 12:35:36 AM	20889
Surr: Nitrobenzene-d5	77.2	47.8-106		%REC	1	8/25/2015 12:35:36 AM	20889
Surr: 2-Fluorobiphenyl	107	21.3-123		%REC	1	8/25/2015 12:35:36 AM	20889
Surr: 4-Terphenyl-d14	141	14.3-135	S	%REC	1	8/25/2015 12:35:36 AM	20889
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	9200	500		µg/L	500	8/25/2015 5:31:34 AM	R28420
Toluene	19000	500		µg/L	500	8/25/2015 5:31:34 AM	R28420
Ethylbenzene	1500	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2,4-Trimethylbenzene	880	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,3,5-Trimethylbenzene	220	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Naphthalene	230	100		µg/L	50	8/25/2015 6:00:20 AM	R28420
1-Methylnaphthalene	ND	200		µg/L	50	8/25/2015 6:00:20 AM	R28420
2-Methylnaphthalene	ND	200		µg/L	50	8/25/2015 6:00:20 AM	R28420
Acetone	520	500		µg/L	50	8/25/2015 6:00:20 AM	R28420
Bromobenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Bromodichloromethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Bromoform	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Bromomethane	ND	150		µg/L	50	8/25/2015 6:00:20 AM	R28420
2-Butanone	1600	500		µg/L	50	8/25/2015 6:00:20 AM	R28420
Carbon disulfide	ND	500		µg/L	50	8/25/2015 6:00:20 AM	R28420
Carbon Tetrachloride	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Chlorobenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Chloroethane	ND	100		µg/L	50	8/25/2015 6:00:20 AM	R28420
Chloroform	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Chloromethane	ND	150		µg/L	50	8/25/2015 6:00:20 AM	R28420
2-Chlorotoluene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
4-Chlorotoluene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 3:40:00 PM

Lab ID: 1508884-013

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: BCN			
cis-1,2-DCE	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
cis-1,3-Dichloropropene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	8/25/2015 6:00:20 AM	R28420
Dibromochloromethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Dibromomethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2-Dichlorobenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,3-Dichlorobenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,4-Dichlorobenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Dichlorodifluoromethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,1-Dichloroethane	67	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,1-Dichloroethene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2-Dichloropropane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,3-Dichloropropane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
2,2-Dichloropropane	ND	100		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,1-Dichloropropene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Hexachlorobutadiene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
2-Hexanone	ND	500		µg/L	50	8/25/2015 6:00:20 AM	R28420
Isopropylbenzene	54	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
4-Isopropyltoluene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
4-Methyl-2-pentanone	ND	500		µg/L	50	8/25/2015 6:00:20 AM	R28420
Methylene Chloride	ND	150		µg/L	50	8/25/2015 6:00:20 AM	R28420
n-Butylbenzene	ND	150		µg/L	50	8/25/2015 6:00:20 AM	R28420
n-Propylbenzene	140	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
sec-Butylbenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Styrene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
tert-Butylbenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	8/25/2015 6:00:20 AM	R28420
Tetrachloroethene (PCE)	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
trans-1,2-DCE	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
trans-1,3-Dichloropropene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2,3-Trichlorobenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2,4-Trichlorobenzene	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,1,1-Trichloroethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,1,2-Trichloroethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Trichloroethene (TCE)	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
Trichlorofluoromethane	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420
1,2,3-Trichloropropane	ND	100		µg/L	50	8/25/2015 6:00:20 AM	R28420
Vinyl chloride	ND	50		µg/L	50	8/25/2015 6:00:20 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 3:40:00 PM

Lab ID: 1508884-013

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	6500	75		µg/L	50	8/25/2015 6:00:20 AM	R28420
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%REC	50	8/25/2015 6:00:20 AM	R28420
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	50	8/25/2015 6:00:20 AM	R28420
Surr: Dibromofluoromethane	94.1	70-130		%REC	50	8/25/2015 6:00:20 AM	R28420
Surr: Toluene-d8	96.5	70-130		%REC	50	8/25/2015 6:00:20 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015

Lab ID: 1508884-014

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/20/2015 3:35:28 AM	R28329
Surr: BFB	77.8	57.8-137		%REC	1	8/20/2015 3:35:28 AM	R28329
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Toluene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Ethylbenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Naphthalene	ND	2.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Acetone	ND	10		µg/L	1	8/25/2015 6:29:10 AM	R28420
Bromobenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Bromoform	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Bromomethane	ND	3.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
2-Butanone	ND	10		µg/L	1	8/25/2015 6:29:10 AM	R28420
Carbon disulfide	ND	10		µg/L	1	8/25/2015 6:29:10 AM	R28420
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Chlorobenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Chloroethane	ND	2.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Chloroform	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Chloromethane	ND	3.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Dibromomethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015

Lab ID: 1508884-014

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
2-Hexanone	ND	10		µg/L	1	8/25/2015 6:29:10 AM	R28420
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2015 6:29:10 AM	R28420
Methylene Chloride	ND	3.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Styrene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Vinyl chloride	ND	1.0		µg/L	1	8/25/2015 6:29:10 AM	R28420
Xylenes, Total	ND	1.5		µg/L	1	8/25/2015 6:29:10 AM	R28420
Surr: 1,2-Dichloroethane-d4	88.4	70-130		%REC	1	8/25/2015 6:29:10 AM	R28420
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	1	8/25/2015 6:29:10 AM	R28420
Surr: Dibromofluoromethane	89.6	70-130		%REC	1	8/25/2015 6:29:10 AM	R28420
Surr: Toluene-d8	98.1	70-130		%REC	1	8/25/2015 6:29:10 AM	R28420

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 7:00:00 AM

Lab ID: 1508884-015

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 1:06:00 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 1:06:00 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 1:06:00 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 1:06:00 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508884

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 3RD Quarter MKTF WELLS

Collection Date: 8/18/2015 7:00:00 AM

Lab ID: 1508884-015

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: JDC			
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 1:06:00 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Phenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:06:00 AM	20889
Surr: 2-Fluorophenol	33.0	14.9-111		%REC	1	8/25/2015 1:06:00 AM	20889
Surr: Phenol-d5	35.7	11.3-108		%REC	1	8/25/2015 1:06:00 AM	20889
Surr: 2,4,6-Tribromophenol	80.9	15.7-154		%REC	1	8/25/2015 1:06:00 AM	20889
Surr: Nitrobenzene-d5	47.4	47.8-106	S	%REC	1	8/25/2015 1:06:00 AM	20889
Surr: 2-Fluorobiphenyl	55.4	21.3-123		%REC	1	8/25/2015 1:06:00 AM	20889
Surr: 4-Terphenyl-d14	101	14.3-135		%REC	1	8/25/2015 1:06:00 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	C28648	RunNo:	28648					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867177	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	C28648	RunNo:	28648					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867178	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.4	85	115			
Copper	0.48	0.0060	0.5000	0	96.7	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.48	0.0020	0.5000	0	96.7	85	115			
Potassium	50	1.0	50.00	0	100	85	115			
Silver	0.093	0.0050	0.1000	0	93.4	85	115			
Sodium	52	1.0	50.00	0	103	85	115			
Zinc	0.49	0.010	0.5000	0	98.5	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	C28648	RunNo:	28648					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867179	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0025	0.0020	0.002000	0	124	50	150			
Cadmium	0.0020	0.0020	0.002000	0	101	50	150			
Calcium	ND	1.0	0.5000	0	102	50	150			
Chromium	0.0081	0.0060	0.006000	0	135	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867179		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0061	0.0060	0.006000	0	102	50	150			
Iron	ND	0.020	0.02000	0	99.9	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	0.0022	0.0020	0.002000	0	109	50	150			
Potassium	ND	1.0	0.5000	0	106	50	150			
Silver	ND	0.0050	0.005000	0	82.2	50	150			
Sodium	ND	1.0	0.5000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	70.8	50	150			

Sample ID	MB		SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW		Batch ID: A28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868399		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Manganese	ND	0.0020								
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868400		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Iron	0.49	0.020	0.5000	0	97.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.5	85	115			
Sodium	51	1.0	50.00	0	101	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868401		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	98.0	50	150			
Calcium	ND	1.0	0.5000	0	106	50	150			
Iron	ND	0.020	0.02000	0	89.8	50	150			
Manganese	0.0020	0.0020	0.002000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868401		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	106	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	MB-21024		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21024		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 863952		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21024		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21024		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 863953		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.9	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.5	85	115			
Chromium	0.48	0.0060	0.5000	0	95.0	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Iron	0.48	0.020	0.5000	0	96.0	85	115			
Manganese	0.47	0.0020	0.5000	0	93.9	85	115			
Silver	0.099	0.0050	0.1000	0	98.6	85	115			
Zinc	0.47	0.010	0.5000	0	94.8	85	115			

Sample ID	LLLCS-21024		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21024		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 863954		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	120	50	150			
Cadmium	ND	0.0020	0.002000	0	91.0	50	150			
Chromium	ND	0.0060	0.006000	0	99.2	50	150			
Copper	0.0064	0.0060	0.006000	0	107	50	150			
Iron	0.025	0.020	0.02000	0	125	50	150			
Manganese	ND	0.0020	0.002000	0	98.0	50	150			
Silver	0.0050	0.0050	0.005000	0	101	50	150			
Zinc	ND	0.010	0.005000	0	107	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	1508884-009FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-17		Batch ID: 21024		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 864296		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.68	0.0020	0.5000	0.1973	97.5	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.51	0.0060	0.5000	0	101	70	130			
Copper	0.55	0.0060	0.5000	0.009680	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Zinc	0.54	0.010	0.5000	0.01129	105	70	130			

Sample ID	1508884-009FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-17		Batch ID: 21024		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 864297		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.68	0.0020	0.5000	0.1973	95.8	70	130	1.24	20	
Cadmium	0.50	0.0020	0.5000	0	101	70	130	1.43	20	
Chromium	0.50	0.0060	0.5000	0	99.5	70	130	1.86	20	
Copper	0.54	0.0060	0.5000	0.009680	106	70	130	1.47	20	
Silver	0.10	0.0050	0.1000	0	101	70	130	1.29	20	
Zinc	0.53	0.010	0.5000	0.01129	103	70	130	2.10	20	

Sample ID	1508884-009FMS	SampType: MS			TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-17	Batch ID: 21024			RunNo: 28693					
Prep Date:	8/27/2015	Analysis Date: 9/8/2015			SeqNo: 869401		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.7	0.10	0.5000	1.694	204	70	130			S

Sample ID	1508884-009FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-17		Batch ID: 21024		RunNo: 28693					
Prep Date:	8/27/2015		Analysis Date: 9/8/2015		SeqNo: 869402		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.7	0.10	0.5000	1.694	203	70	130	0.203	20	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	1508884-005EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	MKTF-35		Batch ID: F28630		RunNo: 28630					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866470		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.062	0.0025	0.06250	0.0004283	98.4	70	130			
Uranium	0.067	0.0025	0.06250	0.001527	105	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: D28630		RunNo: 28630					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866499		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	103	85	115			
Lead	0.012	0.00050	0.01250	0	98.5	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: F28630		RunNo: 28630					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866500		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	96.7	85	115			
Uranium	0.012	0.00050	0.01250	0	98.2	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28630		RunNo: 28630					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866502		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	97.7	50	150			
Lead	0.00052	0.00050	0.0005000	0	105	50	150			
Selenium	ND	0.0010	0.001000	0	93.3	50	150			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: F28630		RunNo: 28630					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866503		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050	0.0005000	0	98.9	50	150			
Uranium	ND	0.00050	0.0005000	0	96.0	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	D28630	RunNo:	28630					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	866505	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	F28630	RunNo:	28630					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	866506	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	B28672	RunNo:	28672					
Prep Date:		Analysis Date:	9/4/2015	SeqNo:	868548	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.9	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			
Uranium	0.012	0.00050	0.01250	0	99.7	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	C28672	RunNo:	28672					
Prep Date:		Analysis Date:	9/4/2015	SeqNo:	868549	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.027	0.0010	0.02500	0	107	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	B28672	RunNo:	28672					
Prep Date:		Analysis Date:	9/4/2015	SeqNo:	868551	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	C28672	RunNo:	28672					
Prep Date:		Analysis Date:	9/4/2015	SeqNo:	868552	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Selenium	0.0011	0.0010	0.001000	0	109	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	B28672	RunNo:	28672					
Prep Date:		Analysis Date:	9/4/2015	SeqNo:	868554	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	C28672	RunNo:	28672					
Prep Date:		Analysis Date:	9/4/2015	SeqNo:	868555	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	1508884-006FMSLL				SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-34				Batch ID:	21024			RunNo:	28551		
Prep Date:	8/27/2015				Analysis Date:	8/28/2015			SeqNo:	863603		
									Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Lead	0.015	0.00050	0.01250	0.002707	102	70	130					

Sample ID	MB-21024				SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW				Batch ID:	21024			RunNo:	28551		
Prep Date:	8/27/2015				Analysis Date:	8/28/2015			SeqNo:	863619		
									Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Arsenic	ND	0.0010										
Lead	ND	0.00050										
Selenium	ND	0.0010										
Uranium	ND	0.00050										

Sample ID	MSLCS-21024				SampType:	LCS			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	LCSW				Batch ID:	21024			RunNo:	28551		
Prep Date:	8/27/2015				Analysis Date:	8/28/2015			SeqNo:	863621		
									Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Arsenic	0.024	0.0010	0.02500	0	96.2	85	115					
Lead	0.013	0.00050	0.01250	0	100	85	115					
Selenium	0.024	0.0010	0.02500	0	96.2	85	115					
Uranium	0.012	0.00050	0.01250	0	96.5	85	115					

Sample ID	MSLLCS-21024				SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC				Batch ID:	21024			RunNo:	28551		
Prep Date:	8/27/2015				Analysis Date:	8/28/2015			SeqNo:	863623		
									Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Arsenic	ND	0.0010	0.001000	0	89.7	50	150					
Lead	0.00053	0.00050	0.0005000	0	105	50	150					
Selenium	ND	0.0010	0.001000	0	88.5	50	150					
Uranium	ND	0.00050	0.0005000	0	98.7	50	150					

Sample ID	1508884-006FMSLL				SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-34				Batch ID:	21024			RunNo:	28605		
Prep Date:	8/27/2015				Analysis Date:	9/1/2015			SeqNo:	865370		
									Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Arsenic	0.028	0.0050	0.02500	0.002941	99.4	70	130					
Selenium	0.034	0.0050	0.02500	0.008644	101	70	130					
Uranium	0.046	0.0025	0.01250	0.03059	121	70	130					

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	MB-21097		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 21097		RunNo: 28621					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866040		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-21097		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 21097		RunNo: 28621					
Prep Date:	9/1/2015		Analysis Date: 9/2/2015		SeqNo: 866041		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28334	RunNo:	28334					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855516	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28334	RunNo:	28334					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855517	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	90	110			
Chloride	5.1	0.50	5.000	0	101	90	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	103	90	110			
Bromide	2.6	0.10	2.500	0	103	90	110			
Nitrogen, Nitrate (As N)	2.7	0.10	2.500	0	106	90	110			
Phosphorus, Orthophosphate (As P	5.2	0.50	5.000	0	103	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28337	RunNo:	28337					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855659	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28337	RunNo:	28337					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855660	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.8	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28337		RunNo: 28337					
Prep Date:			Analysis Date: 8/19/2015		SeqNo: 855660		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0	93.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.6	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.2	90	110			
Sulfate	9.9	0.50	10.00	0	99.2	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28337			RunNo: 28337					
Prep Date:		Analysis Date: 8/20/2015			SeqNo: 855713		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28337		RunNo: 28337					
Prep Date:			Analysis Date: 8/20/2015		SeqNo: 855714		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.6	90	110			
Bromide	2.3	0.10	2.500	0	91.1	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.9	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.8	90	110			
Sulfate	9.7	0.50	10.00	0	97.5	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28338			RunNo: 28338					
Prep Date:		Analysis Date: 8/19/2015			SeqNo: 855775		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28338	RunNo:	28338					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855775	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28338	RunNo:	28338					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855776	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.6	90	110			
Bromide	2.5	0.10	2.500	0	99.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.4	90	110			
Sulfate	9.8	0.50	10.00	0	98.0	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28586	RunNo:	28586					
Prep Date:		Analysis Date:	8/31/2015	SeqNo:	864637	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28586	RunNo:	28586					
Prep Date:		Analysis Date:	8/31/2015	SeqNo:	864638	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.6	90	110			
Chloride	4.8	0.50	5.000	0	96.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28611	RunNo:	28611					
Prep Date:		Analysis Date:	9/1/2015	SeqNo:	865519	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3RD Quarter MKTF WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28611		RunNo: 28611					
Prep Date:			Analysis Date: 9/1/2015		SeqNo: 865520		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	MB-20873		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		100	72	136			

Sample ID	LCS-20873		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855913		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.8	52.4	154			
Surr: DNOP	0.47		0.5000		94.3	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	A28329	RunNo:	28329					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855363	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		80.9	57.8	137			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	A28329	RunNo:	28329					
Prep Date:		Analysis Date:	8/19/2015	SeqNo:	855364	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.0	80	120			
Surr: BFB	17		20.00		85.3	57.8	137			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	100nc LCS			SampType: LCS		TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW			Batch ID: R28420		RunNo: 28420				
Prep Date:	Analysis Date: 8/24/2015			SeqNo: 858634		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.0	70	130			
Toluene	19	1.0	20.00	0	96.3	70	130			
Chlorobenzene	19	1.0	20.00	0	93.1	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.7	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	78.2	70	130			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.6	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.3	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.1	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28420			RunNo: 28420					
Prep Date:		Analysis Date: 8/24/2015			SeqNo: 858635		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28420	RunNo:	28420					
Prep Date:		Analysis Date:	8/24/2015	SeqNo:	858635	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R28420	RunNo:	28420					
Prep Date:		Analysis Date:	8/24/2015	SeqNo:	858635	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.5	70	130			
Surr: Toluene-d8	9.5		10.00		95.4	70	130			

Sample ID	1508884-002ams	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	MKTF-44	Batch ID:	R28420	RunNo:	28420					
Prep Date:		Analysis Date:	8/24/2015	SeqNo:	858640	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.09400	101	70	130			
Toluene	21	1.0	20.00	0	105	70	130			
Chlorobenzene	20	1.0	20.00	0	97.6	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	108	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.2	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.4	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.5	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID	1508884-002amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	MKTF-44	Batch ID:	R28420	RunNo:	28420					
Prep Date:		Analysis Date:	8/24/2015	SeqNo:	858641	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0.09400	93.6	70	130	7.71	20	
Toluene	20	1.0	20.00	0	100	70	130	4.98	20	
Chlorobenzene	19	1.0	20.00	0	93.7	70	130	4.11	20	
1,1-Dichloroethene	20	1.0	20.00	0	98.9	70	130	9.11	20	
Trichloroethene (TCE)	16	1.0	20.00	0	82.2	70	130	8.78	20	
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130	0	0	
Surr: Dibromofluoromethane	9.2		10.00		91.7	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		99.3	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	a28451	RunNo:	28451					
Prep Date:		Analysis Date:	8/25/2015	SeqNo:	859792	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.5	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	9.8		10.00		98.4	70	130			

Sample ID	100ng LCS	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	a28451	RunNo:	28451					
Prep Date:		Analysis Date:	8/25/2015	SeqNo:	859793	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.9	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.8	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.1	70	130			
Surr: Toluene-d8	9.5		10.00		94.5	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	mb-20889	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20889	RunNo:	28422					
Prep Date:	8/20/2015	Analysis Date:	8/24/2015	SeqNo:	858874	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	mb-20889	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20889	RunNo:	28422					
Prep Date:	8/20/2015	Analysis Date:	8/24/2015	SeqNo:	858874	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		68.3	14.9	111			
Surr: Phenol-d5	140		200.0		70.9	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		70.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		73.8	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.1	21.3	123			
Surr: 4-Terphenyl-d14	51		100.0		51.5	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	Ics-20889		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858875		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.7	47.8	99.7			
4-Chloro-3-methylphenol	140	10	200.0	0	68.0	58.1	103			
2-Chlorophenol	140	10	200.0	0	70.6	49.5	96.8			
1,4-Dichlorobenzene	68	10	100.0	0	67.6	40.4	89.4			
2,4-Dinitrotoluene	52	10	100.0	0	51.6	38.6	91.3			
N-Nitrosodi-n-propylamine	67	10	100.0	0	67.4	53.9	95.6			
4-Nitrophenol	130	10	200.0	0	62.7	26.4	108			
Pentachlorophenol	110	20	200.0	0	55.9	36.5	86.6			
Phenol	140	10	200.0	0	68.3	29.3	108			
Pyrene	71	10	100.0	0	71.1	45.7	100			
1,2,4-Trichlorobenzene	73	10	100.0	0	73.3	39.3	94.5			
Surr: 2-Fluorophenol	140		200.0		68.0	14.9	111			
Surr: Phenol-d5	130		200.0		66.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.3	15.7	154			
Surr: Nitrobenzene-d5	68		100.0		67.5	47.8	106			
Surr: 2-Fluorobiphenyl	68		100.0		67.5	21.3	123			
Surr: 4-Terphenyl-d14	55		100.0		55.4	14.3	135			

Sample ID	Icsd-20889		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858876		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.2	47.8	99.7	10.5	28.2	
4-Chloro-3-methylphenol	160	10	200.0	0	80.6	58.1	103	16.9	24.4	
2-Chlorophenol	170	10	200.0	0	87.0	49.5	96.8	20.9	28.1	
1,4-Dichlorobenzene	78	10	100.0	0	78.2	40.4	89.4	14.5	31.2	
2,4-Dinitrotoluene	50	10	100.0	0	50.1	38.6	91.3	3.07	44.4	
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.6	53.9	95.6	12.8	24.2	
4-Nitrophenol	120	10	200.0	0	61.2	26.4	108	2.37	36.6	
Pentachlorophenol	130	20	200.0	0	67.5	36.5	86.6	18.8	29.5	
Phenol	170	10	200.0	0	84.5	29.3	108	21.2	30	
Pyrene	77	10	100.0	0	76.7	45.7	100	7.53	31	
1,2,4-Trichlorobenzene	90	10	100.0	0	89.8	39.3	94.5	20.3	24	
Surr: 2-Fluorophenol	150		200.0		77.4	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		81.4	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	82		100.0		82.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	lcsd-20889		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858876		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	62		100.0		61.7	14.3	135	0	0	

Sample ID	mb-20962		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20962		RunNo: 28422					
Prep Date:	8/25/2015		Analysis Date: 8/25/2015		SeqNo: 859827		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzoic acid	ND	20								
4-Chloro-3-methylphenol	ND	10								
2-Chlorophenol	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenol	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		68.2	14.9	111			
Surr: Phenol-d5	130		200.0		64.8	11.3	108			
Surr: 2,4,6-Tribromophenol	170		200.0		84.2	15.7	154			
Surr: Nitrobenzene-d5	78		100.0		78.0	47.8	106			
Surr: 2-Fluorobiphenyl	78		100.0		77.7	21.3	123			
Surr: 4-Terphenyl-d14	70		100.0		70.3	14.3	135			

Sample ID	lcs-20962		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20962		RunNo: 28422					
Prep Date:	8/25/2015		Analysis Date: 8/25/2015		SeqNo: 859828		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	150	10	200.0	0	74.7	58.1	103			
2-Chlorophenol	160	10	200.0	0	77.5	49.5	96.8			
4-Nitrophenol	160	10	200.0	0	79.0	26.4	108			
Pentachlorophenol	140	20	200.0	0	68.7	36.5	86.6			
Phenol	150	10	200.0	0	75.2	29.3	108			
Surr: 2-Fluorophenol	140		200.0		70.2	14.9	111			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	lcs-20962		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20962		RunNo: 28422					
Prep Date:	8/25/2015		Analysis Date: 8/25/2015		SeqNo: 859828		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	140		200.0		71.5	11.3	108			
Surr: 2,4,6-Tribromophenol	160		200.0		78.7	15.7	154			
Surr: Nitrobenzene-d5	76		100.0		75.9	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		74.7	21.3	123			
Surr: 4-Terphenyl-d14	60		100.0		59.9	14.3	135			

Sample ID	mb-20930		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20930		RunNo: 28486					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861179		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	mb-20930	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20930	RunNo:	28486					
Prep Date:	8/24/2015	Analysis Date:	8/26/2015	SeqNo:	861179	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	mb-20930		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20930		RunNo: 28486					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861179		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	95		200.0		47.5	14.9	111			
Surr: Phenol-d5	100		200.0		51.8	11.3	108			
Surr: 2,4,6-Tribromophenol	160		200.0		79.4	15.7	154			
Surr: Nitrobenzene-d5	51		100.0		51.0	47.8	106			
Surr: 2-Fluorobiphenyl	54		100.0		53.5	21.3	123			
Surr: 4-Terphenyl-d14	110		100.0		108	14.3	135			

Sample ID	lcsd-20930		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20930		RunNo: 28486					
Prep Date:	8/24/2015		Analysis Date: 8/26/2015		SeqNo: 861186		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	80.0	47.8	99.7	32.0	28.2	R
4-Chloro-3-methylphenol	170	10	200.0	0	85.2	58.1	103	20.5	24.4	
2-Chlorophenol	160	10	200.0	0	79.0	49.5	96.8	34.3	28.1	R
1,4-Dichlorobenzene	83	10	100.0	0	82.9	40.4	89.4	41.5	31.2	R
2,4-Dinitrotoluene	63	10	100.0	0	63.0	38.6	91.3	28.7	44.4	
N-Nitrosodi-n-propylamine	84	10	100.0	0	84.3	53.9	95.6	25.6	24.2	R
4-Nitrophenol	180	10	200.0	0	89.7	26.4	108	36.0	36.6	
Pentachlorophenol	160	20	200.0	0	82.1	36.5	86.6	29.4	29.5	
Phenol	160	10	200.0	0	80.6	29.3	108	38.5	30	R
Pyrene	120	10	100.0	0	119	45.7	100	19.0	31	S
1,2,4-Trichlorobenzene	84	10	100.0	0	84.3	39.3	94.5	37.1	24	R
Surr: 2-Fluorophenol	150		200.0		74.7	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		82.2	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	15.7	154	0	0	
Surr: Nitrobenzene-d5	81		100.0		81.2	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	84		100.0		84.3	21.3	123	0	0	
Surr: 4-Terphenyl-d14	150		100.0		149	14.3	135	0	0	S

Sample ID	mb-21021		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 21021		RunNo: 28509					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862148		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	82		200.0		40.8	14.9	111			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508884

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3RD Quarter MKTF WELLS

Sample ID	mb-21021		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 21021		RunNo: 28509					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862148		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	86		200.0		43.0	11.3	108			
Surr: 2,4,6-Tribromophenol	120		200.0		60.4	15.7	154			
Surr: Nitrobenzene-d5	45		100.0		44.7	47.8	106			S
Surr: 2-Fluorobiphenyl	46		100.0		45.6	21.3	123			
Surr: 4-Terphenyl-d14	87		100.0		87.3	14.3	135			

Sample ID	lcs-20930		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20930		RunNo: 28509					
Prep Date:	8/24/2015		Analysis Date: 8/27/2015		SeqNo: 862149		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	58	10	100.0	0	57.9	47.8	99.7			
4-Chloro-3-methylphenol	140	10	200.0	0	69.4	58.1	103			
2-Chlorophenol	110	10	200.0	0	55.8	49.5	96.8			
1,4-Dichlorobenzene	54	10	100.0	0	54.4	40.4	89.4			
2,4-Dinitrotoluene	47	10	100.0	0	47.2	38.6	91.3			
N-Nitrosodi-n-propylamine	65	10	100.0	0	65.1	53.9	95.6			
4-Nitrophenol	120	10	200.0	0	62.4	26.4	108			
Pentachlorophenol	120	20	200.0	0	61.0	36.5	86.6			
Phenol	110	10	200.0	0	54.6	29.3	108			
Pyrene	99	10	100.0	0	98.6	45.7	100			
1,2,4-Trichlorobenzene	58	10	100.0	0	58.0	39.3	94.5			
Surr: 2-Fluorophenol	110		200.0		53.0	14.9	111			
Surr: Phenol-d5	120		200.0		61.1	11.3	108			
Surr: 2,4,6-Tribromophenol	160		200.0		82.5	15.7	154			
Surr: Nitrobenzene-d5	59		100.0		59.1	47.8	106			
Surr: 2-Fluorobiphenyl	60		100.0		60.0	21.3	123			
Surr: 4-Terphenyl-d14	120		100.0		120	14.3	135			

Sample ID	lcs-21021		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 21021		RunNo: 28509					
Prep Date:	8/27/2015		Analysis Date: 8/27/2015		SeqNo: 862150		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		71.3	14.9	111			
Surr: Phenol-d5	150		200.0		72.7	11.3	108			
Surr: 2,4,6-Tribromophenol	160		200.0		80.7	15.7	154			
Surr: Nitrobenzene-d5	72		100.0		72.4	47.8	106			
Surr: 2-Fluorobiphenyl	73		100.0		73.1	21.3	123			
Surr: 4-Terphenyl-d14	64		100.0		63.5	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508884

RcptNo: 1

Received by/date:	AT	08/19/15
Logged By:	Anne Thorne	8/19/2015 10:00:00 AM
Completed By:	Anne Thorne	8/19/2015
Reviewed By:	CS	08/19/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☒	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☒	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☒	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☒	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☐	No ☒	
9. Was preservative added to bottles?	Yes ☒	No ☐	NA ☐
10. VOA vials have zero headspace?	Yes ☒	No ☐	See Comments No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☒	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☒	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☒	No ☐	
14. Is it clear what analyses were requested?	Yes ☒	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☒	No ☐	

of preserved bottles checked for pH: 36
(2 or >12 unless noted)
Adjusted? yes
Checked by: mg

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

For Dissolved Metals Analysis: Added 0.4 mL HNO₃ to -013E for acceptable pH. For Total Metals analysis: Added 1 mL HNO₃ to -007F, -008F and -011F for acceptable pH. Added 3 mL HNO₃ to 013F for acceptable pH. All samples held in login for 24 hours after preservation. MMG 08/19/2015

18. Cooler Information



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508884

RcptNo: 1

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Analysis Request

[illegible]

if necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Collect a duplicate of 8270 from either one of the these wells.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 18, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3rd Quarter/Annual-OW Wells

OrderNo.: 1508885

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 8/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 7:00:00 AM

Lab ID: 1508885-001

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Toluene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Naphthalene	ND	2.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Acetone	ND	10		µg/L	1	8/24/2015 5:38:14 PM	R28426
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Bromoform	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Bromomethane	ND	3.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
2-Butanone	ND	10		µg/L	1	8/24/2015 5:38:14 PM	R28426
Carbon disulfide	ND	10		µg/L	1	8/24/2015 5:38:14 PM	R28426
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Chloroethane	ND	2.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Chloroform	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Chloromethane	ND	3.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 5:38:14 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 7:00:00 AM

Lab ID: 1508885-001

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
2-Hexanone	ND	10		µg/L	1	8/24/2015 5:38:14 PM	R28426
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 5:38:14 PM	R28426
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Styrene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 5:38:14 PM	R28426
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 5:38:14 PM	R28426
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	8/24/2015 5:38:14 PM	R28426
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	8/24/2015 5:38:14 PM	R28426
Surr: Dibromofluoromethane	101	70-130		%REC	1	8/24/2015 5:38:14 PM	R28426
Surr: Toluene-d8	98.9	70-130		%REC	1	8/24/2015 5:38:14 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 9:47:00 AM

Lab ID: 1508885-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:29:37 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 9:01:03 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:29:37 PM	C28672
Uranium	0.011	0.0025		mg/L	5	9/2/2015 9:01:03 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.39	0.10		mg/L	1	8/20/2015 10:42:16 AM	R28382
Chloride	23	10		mg/L	20	8/20/2015 10:54:40 AM	R28382
Bromide	ND	0.10		mg/L	1	8/20/2015 10:42:16 AM	R28382
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/20/2015 10:42:16 AM	R28382
Sulfate	73	10		mg/L	20	8/20/2015 10:54:40 AM	R28382
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/4/2015 1:21:07 AM	R28656
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.011	0.0020		mg/L	1	9/3/2015 6:25:33 PM	B28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 6:25:33 PM	B28648
Calcium	1.6	1.0		mg/L	1	9/3/2015 6:25:33 PM	B28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 6:25:33 PM	B28648
Copper	ND	0.0060		mg/L	1	9/3/2015 6:25:33 PM	B28648
Iron	ND	0.020		mg/L	1	9/3/2015 6:25:33 PM	B28648
Magnesium	ND	1.0		mg/L	1	9/3/2015 6:25:33 PM	B28648
Manganese	ND	0.0020		mg/L	1	9/3/2015 6:25:33 PM	B28648
Potassium	ND	1.0		mg/L	1	9/3/2015 6:25:33 PM	B28648
Silver	ND	0.0050		mg/L	1	9/3/2015 6:25:33 PM	B28648
Sodium	260	5.0		mg/L	5	9/3/2015 6:27:34 PM	B28648
Zinc	ND	0.010		mg/L	1	9/3/2015 6:25:33 PM	B28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.013	0.0020		mg/L	1	8/31/2015 7:45:52 PM	21023
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:45:52 PM	21023
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:45:52 PM	21023
Copper	ND	0.0060		mg/L	1	8/31/2015 7:45:52 PM	21023
Iron	0.048	0.020		mg/L	1	8/31/2015 7:45:52 PM	21023
Manganese	0.0033	0.0020		mg/L	1	8/31/2015 7:45:52 PM	21023
Silver	ND	0.0050		mg/L	1	8/31/2015 7:45:52 PM	21023
Zinc	ND	0.010		mg/L	1	8/31/2015 7:45:52 PM	21023
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0013	0.0010		mg/L	1	8/28/2015 8:18:32 PM	21023
Lead	0.00051	0.00050		mg/L	1	8/28/2015 8:18:32 PM	21023
Selenium	ND	0.0010		mg/L	1	8/28/2015 8:18:32 PM	21023

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 9:47:00 AM

Lab ID: 1508885-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.011	0.00050		mg/L	1	8/28/2015 8:18:32 PM	21023
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 2:12:55 PM	21097
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 3:16:11 AM	A28370
Surr: BFB	98.5	70-130		%REC	1	8/21/2015 3:16:11 AM	A28370
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/19/2015 2:24:23 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/19/2015 2:24:23 PM	20873
Surr: DNOP	111	72-136		%REC	1	8/19/2015 2:24:23 PM	20873
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 1:36:24 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 9:47:00 AM

Lab ID: 1508885-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 1:36:24 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 1:36:24 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 1:36:24 AM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 1:36:24 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 9:47:00 AM

Lab ID: 1508885-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 1:36:24 AM	20889
Surr: 2-Fluorophenol	51.8	14.9-111		%REC	1	8/25/2015 1:36:24 AM	20889
Surr: Phenol-d5	51.3	11.3-108		%REC	1	8/25/2015 1:36:24 AM	20889
Surr: 2,4,6-Tribromophenol	86.5	15.7-154		%REC	1	8/25/2015 1:36:24 AM	20889
Surr: Nitrobenzene-d5	74.6	47.8-106		%REC	1	8/25/2015 1:36:24 AM	20889
Surr: 2-Fluorobiphenyl	75.3	21.3-123		%REC	1	8/25/2015 1:36:24 AM	20889
Surr: 4-Terphenyl-d14	115	14.3-135		%REC	1	8/25/2015 1:36:24 AM	20889
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Toluene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Naphthalene	ND	2.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Acetone	ND	10		µg/L	1	8/24/2015 6:07:01 PM	R28426
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Bromoform	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Bromomethane	ND	3.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
2-Butanone	ND	10		µg/L	1	8/24/2015 6:07:01 PM	R28426
Carbon disulfide	ND	10		µg/L	1	8/24/2015 6:07:01 PM	R28426
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Chloroethane	ND	2.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Chloroform	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Chloromethane	ND	3.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 9:47:00 AM

Lab ID: 1508885-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
2-Hexanone	ND	10		µg/L	1	8/24/2015 6:07:01 PM	R28426
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 6:07:01 PM	R28426
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Styrene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 6:07:01 PM	R28426
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 6:07:01 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 9:47:00 AM

Lab ID: 1508885-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/24/2015 6:07:01 PM	R28426
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/24/2015 6:07:01 PM	R28426
Surr: Dibromofluoromethane	102	70-130		%REC	1	8/24/2015 6:07:01 PM	R28426
Surr: Toluene-d8	92.7	70-130		%REC	1	8/24/2015 6:07:01 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 12:30:00 PM

Lab ID: 1508885-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:32:41 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 9:04:06 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:32:41 PM	C28672
Uranium	0.0091	0.0025		mg/L	5	9/2/2015 9:04:06 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.54	0.10		mg/L	1	8/20/2015 11:07:04 AM	R28382
Chloride	35	10		mg/L	20	8/20/2015 11:19:28 AM	R28382
Bromide	ND	0.10		mg/L	1	8/20/2015 11:07:04 AM	R28382
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/20/2015 11:07:04 AM	R28382
Sulfate	100	10		mg/L	20	8/20/2015 11:19:28 AM	R28382
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/4/2015 1:33:32 AM	R28656
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.017	0.0020		mg/L	1	9/3/2015 6:35:30 PM	B28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 6:35:30 PM	B28648
Calcium	1.5	1.0		mg/L	1	9/3/2015 6:35:30 PM	B28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 6:35:30 PM	B28648
Copper	ND	0.0060		mg/L	1	9/3/2015 6:35:30 PM	B28648
Iron	ND	0.020		mg/L	1	9/3/2015 6:35:30 PM	B28648
Magnesium	ND	1.0		mg/L	1	9/3/2015 6:35:30 PM	B28648
Manganese	0.0021	0.0020		mg/L	1	9/3/2015 6:35:30 PM	B28648
Potassium	ND	1.0		mg/L	1	9/3/2015 6:35:30 PM	B28648
Silver	ND	0.0050		mg/L	1	9/3/2015 6:35:30 PM	B28648
Sodium	270	5.0		mg/L	5	9/3/2015 6:37:32 PM	B28648
Zinc	ND	0.010		mg/L	1	9/3/2015 6:35:30 PM	B28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	8/31/2015 7:57:40 PM	21023
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:57:40 PM	21023
Chromium	ND	0.0060		mg/L	1	8/31/2015 7:57:40 PM	21023
Copper	ND	0.0060		mg/L	1	8/31/2015 7:57:40 PM	21023
Iron	0.023	0.020		mg/L	1	8/31/2015 7:57:40 PM	21023
Manganese	0.0035	0.0020		mg/L	1	8/31/2015 7:57:40 PM	21023
Silver	ND	0.0050		mg/L	1	8/31/2015 7:57:40 PM	21023
Zinc	ND	0.010		mg/L	1	9/2/2015 5:04:00 PM	21023
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/28/2015 8:23:40 PM	21023
Lead	ND	0.00050		mg/L	1	8/28/2015 8:23:40 PM	21023
Selenium	ND	0.0010		mg/L	1	8/28/2015 8:23:40 PM	21023

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 12:30:00 PM

Lab ID: 1508885-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0094	0.00050		mg/L	1	8/28/2015 8:23:40 PM	21023
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 2:15:00 PM	21097
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 3:44:51 AM	A28370
Surr: BFB	98.8	70-130		%REC	1	8/21/2015 3:44:51 AM	A28370
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/19/2015 4:12:41 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/19/2015 4:12:41 PM	20873
Surr: DNOP	115	72-136		%REC	1	8/19/2015 4:12:41 PM	20873
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 2:06:36 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 12:30:00 PM

Lab ID: 1508885-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 2:06:36 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 2:06:36 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 2:06:36 AM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 2:06:36 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 12:30:00 PM

Lab ID: 1508885-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:06:36 AM	20889
Surr: 2-Fluorophenol	74.2	14.9-111		%REC	1	8/25/2015 2:06:36 AM	20889
Surr: Phenol-d5	68.4	11.3-108		%REC	1	8/25/2015 2:06:36 AM	20889
Surr: 2,4,6-Tribromophenol	105	15.7-154		%REC	1	8/25/2015 2:06:36 AM	20889
Surr: Nitrobenzene-d5	98.8	47.8-106		%REC	1	8/25/2015 2:06:36 AM	20889
Surr: 2-Fluorobiphenyl	98.1	21.3-123		%REC	1	8/25/2015 2:06:36 AM	20889
Surr: 4-Terphenyl-d14	131	14.3-135		%REC	1	8/25/2015 2:06:36 AM	20889
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Toluene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Naphthalene	ND	2.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Acetone	ND	10		µg/L	1	8/24/2015 6:35:46 PM	R28426
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Bromoform	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Bromomethane	ND	3.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
2-Butanone	ND	10		µg/L	1	8/24/2015 6:35:46 PM	R28426
Carbon disulfide	ND	10		µg/L	1	8/24/2015 6:35:46 PM	R28426
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Chloroethane	ND	2.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Chloroform	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Chloromethane	ND	3.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 12:30:00 PM

Lab ID: 1508885-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
2-Hexanone	ND	10		µg/L	1	8/24/2015 6:35:46 PM	R28426
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 6:35:46 PM	R28426
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Styrene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 6:35:46 PM	R28426
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 6:35:46 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 12:30:00 PM

Lab ID: 1508885-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	1	8/24/2015 6:35:46 PM	R28426
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/24/2015 6:35:46 PM	R28426
Surr: Dibromofluoromethane	96.7	70-130		%REC	1	8/24/2015 6:35:46 PM	R28426
Surr: Toluene-d8	98.2	70-130		%REC	1	8/24/2015 6:35:46 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 2:41:00 PM

Lab ID: 1508885-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:35:44 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 9:07:09 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:35:44 PM	C28672
Uranium	0.035	0.0025	*	mg/L	5	9/2/2015 9:07:09 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.0	0.10		mg/L	1	8/20/2015 11:31:53 AM	R28382
Chloride	55	10		mg/L	20	8/20/2015 11:44:18 AM	R28382
Bromide	0.17	0.10		mg/L	1	8/20/2015 11:31:53 AM	R28382
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/20/2015 11:31:53 AM	R28382
Sulfate	160	10		mg/L	20	8/20/2015 11:44:18 AM	R28382
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/25/2015 12:15:23 AM	R28428
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.020	0.0020		mg/L	1	9/3/2015 6:39:19 PM	B28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 6:39:19 PM	B28648
Calcium	5.0	1.0		mg/L	1	9/3/2015 6:39:19 PM	B28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 6:39:19 PM	B28648
Copper	ND	0.0060		mg/L	1	9/3/2015 6:39:19 PM	B28648
Iron	ND	0.020		mg/L	1	9/3/2015 6:39:19 PM	B28648
Magnesium	1.5	1.0		mg/L	1	9/3/2015 6:39:19 PM	B28648
Manganese	ND	0.0020		mg/L	1	9/3/2015 6:39:19 PM	B28648
Potassium	ND	1.0		mg/L	1	9/3/2015 6:39:19 PM	B28648
Silver	ND	0.0050		mg/L	1	9/3/2015 6:39:19 PM	B28648
Sodium	310	5.0		mg/L	5	9/3/2015 6:41:17 PM	B28648
Zinc	ND	0.010		mg/L	1	9/3/2015 6:39:19 PM	B28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.028	0.0020		mg/L	1	8/31/2015 7:59:45 PM	21023
Cadmium	ND	0.0020		mg/L	1	8/31/2015 7:59:45 PM	21023
Chromium	0.0078	0.0060		mg/L	1	8/31/2015 7:59:45 PM	21023
Copper	ND	0.0060		mg/L	1	8/31/2015 7:59:45 PM	21023
Iron	0.32	0.020	*	mg/L	1	8/31/2015 7:59:45 PM	21023
Manganese	0.010	0.0020		mg/L	1	8/31/2015 7:59:45 PM	21023
Silver	ND	0.0050		mg/L	1	8/31/2015 7:59:45 PM	21023
Zinc	ND	0.010		mg/L	1	9/2/2015 5:06:01 PM	21023
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0030	0.0010		mg/L	1	8/28/2015 8:39:09 PM	21023
Lead	0.00053	0.00050		mg/L	1	8/28/2015 8:39:09 PM	21023
Selenium	ND	0.0010		mg/L	1	8/28/2015 8:39:09 PM	21023

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 2:41:00 PM

Lab ID: 1508885-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.036	0.0050	*	mg/L	10	9/1/2015 7:24:18 PM	21023
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 2:17:06 PM	21097
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 5:11:23 AM	A28370
Surr: BFB	99.0	70-130		%REC	1	8/21/2015 5:11:23 AM	A28370
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/19/2015 4:39:29 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/19/2015 4:39:29 PM	20873
Surr: DNOP	119	72-136		%REC	1	8/19/2015 4:39:29 PM	20873
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 2:36:48 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 2:41:00 PM

Lab ID: 1508885-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 2:36:48 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 2:36:48 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 2:36:48 AM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 2:36:48 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 2:41:00 PM

Lab ID: 1508885-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 2:36:48 AM	20889
Surr: 2-Fluorophenol	41.2	14.9-111		%REC	1	8/25/2015 2:36:48 AM	20889
Surr: Phenol-d5	37.9	11.3-108		%REC	1	8/25/2015 2:36:48 AM	20889
Surr: 2,4,6-Tribromophenol	60.4	15.7-154		%REC	1	8/25/2015 2:36:48 AM	20889
Surr: Nitrobenzene-d5	54.5	47.8-106		%REC	1	8/25/2015 2:36:48 AM	20889
Surr: 2-Fluorobiphenyl	53.8	21.3-123		%REC	1	8/25/2015 2:36:48 AM	20889
Surr: 4-Terphenyl-d14	84.7	14.3-135		%REC	1	8/25/2015 2:36:48 AM	20889
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Toluene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Naphthalene	ND	2.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Acetone	ND	10		µg/L	1	8/24/2015 7:04:26 PM	R28426
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Bromoform	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Bromomethane	ND	3.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
2-Butanone	ND	10		µg/L	1	8/24/2015 7:04:26 PM	R28426
Carbon disulfide	ND	10		µg/L	1	8/24/2015 7:04:26 PM	R28426
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Chloroethane	ND	2.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Chloroform	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Chloromethane	ND	3.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 2:41:00 PM

Lab ID: 1508885-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
2-Hexanone	ND	10		µg/L	1	8/24/2015 7:04:26 PM	R28426
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 7:04:26 PM	R28426
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Styrene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 7:04:26 PM	R28426
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 7:04:26 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 2:41:00 PM

Lab ID: 1508885-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	1	8/24/2015 7:04:26 PM	R28426
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/24/2015 7:04:26 PM	R28426
Surr: Dibromofluoromethane	93.1	70-130		%REC	1	8/24/2015 7:04:26 PM	R28426
Surr: Toluene-d8	97.4	70-130		%REC	1	8/24/2015 7:04:26 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 4:15:00 PM

Lab ID: 1508885-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:38:47 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 9:16:23 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:38:47 PM	C28672
Uranium	0.0091	0.0025		mg/L	5	9/2/2015 9:16:23 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.72	0.10		mg/L	1	8/20/2015 3:15:15 PM	R28382
Chloride	58	10		mg/L	20	8/20/2015 3:27:39 PM	R28382
Bromide	0.11	0.10		mg/L	1	8/20/2015 3:15:15 PM	R28382
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/20/2015 3:15:15 PM	R28382
Sulfate	160	10		mg/L	20	8/20/2015 3:27:39 PM	R28382
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/25/2015 12:27:47 AM	R28428
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.017	0.0020		mg/L	1	9/3/2015 6:43:04 PM	B28648
Cadmium	ND	0.0020		mg/L	1	9/3/2015 6:43:04 PM	B28648
Calcium	1.5	1.0		mg/L	1	9/3/2015 6:43:04 PM	B28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 6:43:04 PM	B28648
Copper	ND	0.0060		mg/L	1	9/3/2015 6:43:04 PM	B28648
Iron	ND	0.020		mg/L	1	9/3/2015 6:43:04 PM	B28648
Magnesium	ND	1.0		mg/L	1	9/3/2015 6:43:04 PM	B28648
Manganese	0.0032	0.0020		mg/L	1	9/3/2015 6:43:04 PM	B28648
Potassium	ND	1.0		mg/L	1	9/3/2015 6:43:04 PM	B28648
Silver	ND	0.0050		mg/L	1	9/3/2015 6:43:04 PM	B28648
Sodium	260	5.0		mg/L	5	9/3/2015 6:45:02 PM	B28648
Zinc	ND	0.010		mg/L	1	9/3/2015 6:43:04 PM	B28648
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.090	0.0020		mg/L	1	8/27/2015 5:16:38 PM	21001
Cadmium	ND	0.0020		mg/L	1	8/27/2015 5:16:38 PM	21001
Chromium	ND	0.0060		mg/L	1	8/27/2015 5:16:38 PM	21001
Copper	ND	0.0060		mg/L	1	8/27/2015 5:16:38 PM	21001
Iron	ND	0.020		mg/L	1	8/27/2015 5:16:38 PM	21001
Manganese	0.0031	0.0020		mg/L	1	8/27/2015 5:16:38 PM	21001
Silver	ND	0.0050		mg/L	1	8/27/2015 5:16:38 PM	21001
Zinc	ND	0.010		mg/L	1	8/27/2015 5:16:38 PM	21001
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/28/2015 8:44:17 PM	21001
Lead	ND	0.00050		mg/L	1	8/28/2015 8:44:17 PM	21001
Selenium	ND	0.0010		mg/L	1	8/28/2015 8:44:17 PM	21001

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 4:15:00 PM

Lab ID: 1508885-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0093	0.00050		mg/L	1	8/28/2015 8:44:17 PM	21001
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/2/2015 2:22:11 PM	21097
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 5:40:08 AM	A28370
Surr: BFB	99.1	70-130		%REC	1	8/21/2015 5:40:08 AM	A28370
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/19/2015 5:06:35 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/19/2015 5:06:35 PM	20873
Surr: DNOP	117	72-136		%REC	1	8/19/2015 5:06:35 PM	20873
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 3:06:59 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 4:15:00 PM

Lab ID: 1508885-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 3:06:59 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 3:06:59 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 3:06:59 AM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 3:06:59 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 4:15:00 PM

Lab ID: 1508885-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 3:06:59 AM	20889
Surr: 2-Fluorophenol	64.5	14.9-111		%REC	1	8/25/2015 3:06:59 AM	20889
Surr: Phenol-d5	59.1	11.3-108		%REC	1	8/25/2015 3:06:59 AM	20889
Surr: 2,4,6-Tribromophenol	100	15.7-154		%REC	1	8/25/2015 3:06:59 AM	20889
Surr: Nitrobenzene-d5	89.1	47.8-106		%REC	1	8/25/2015 3:06:59 AM	20889
Surr: 2-Fluorobiphenyl	85.3	21.3-123		%REC	1	8/25/2015 3:06:59 AM	20889
Surr: 4-Terphenyl-d14	138	14.3-135	S	%REC	1	8/25/2015 3:06:59 AM	20889
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Toluene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Naphthalene	ND	2.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Acetone	ND	10		µg/L	1	8/24/2015 7:33:09 PM	R28426
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Bromoform	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Bromomethane	ND	3.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
2-Butanone	ND	10		µg/L	1	8/24/2015 7:33:09 PM	R28426
Carbon disulfide	ND	10		µg/L	1	8/24/2015 7:33:09 PM	R28426
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Chloroethane	ND	2.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Chloroform	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Chloromethane	ND	3.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 4:15:00 PM

Lab ID: 1508885-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
2-Hexanone	ND	10		µg/L	1	8/24/2015 7:33:09 PM	R28426
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 7:33:09 PM	R28426
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Styrene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 7:33:09 PM	R28426
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 7:33:09 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 4:15:00 PM

Lab ID: 1508885-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	8/24/2015 7:33:09 PM	R28426
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	1	8/24/2015 7:33:09 PM	R28426
Surr: Dibromofluoromethane	94.9	70-130		%REC	1	8/24/2015 7:33:09 PM	R28426
Surr: Toluene-d8	99.0	70-130		%REC	1	8/24/2015 7:33:09 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 7:00:00 AM

Lab ID: 1508885-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 3:36:54 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 3:36:54 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 3:36:54 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 3:36:54 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015 7:00:00 AM

Lab ID: 1508885-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: JDC		
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 3:36:54 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Phenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 3:36:54 AM	20889
Surr: 2-Fluorophenol	74.0	14.9-111		%REC	1	8/25/2015 3:36:54 AM	20889
Surr: Phenol-d5	63.6	11.3-108		%REC	1	8/25/2015 3:36:54 AM	20889
Surr: 2,4,6-Tribromophenol	111	15.7-154		%REC	1	8/25/2015 3:36:54 AM	20889
Surr: Nitrobenzene-d5	94.3	47.8-106		%REC	1	8/25/2015 3:36:54 AM	20889
Surr: 2-Fluorobiphenyl	92.6	21.3-123		%REC	1	8/25/2015 3:36:54 AM	20889
Surr: 4-Terphenyl-d14	174	14.3-135	S	%REC	1	8/25/2015 3:36:54 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015

Lab ID: 1508885-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 6:08:48 AM	A28370
Surr: BFB	101	70-130		%REC	1	8/21/2015 6:08:48 AM	A28370
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Toluene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Ethylbenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Naphthalene	ND	2.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Acetone	ND	10		µg/L	1	8/24/2015 8:01:52 PM	R28426
Bromobenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Bromoform	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Bromomethane	ND	3.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
2-Butanone	ND	10		µg/L	1	8/24/2015 8:01:52 PM	R28426
Carbon disulfide	ND	10		µg/L	1	8/24/2015 8:01:52 PM	R28426
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Chlorobenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Chloroethane	ND	2.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Chloroform	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Chloromethane	ND	3.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Dibromomethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508885

Date Reported: 9/18/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/14/2015

Lab ID: 1508885-007

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
2-Hexanone	ND	10		µg/L	1	8/24/2015 8:01:52 PM	R28426
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2015 8:01:52 PM	R28426
Methylene Chloride	ND	3.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Styrene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Vinyl chloride	ND	1.0		µg/L	1	8/24/2015 8:01:52 PM	R28426
Xylenes, Total	ND	1.5		µg/L	1	8/24/2015 8:01:52 PM	R28426
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	1	8/24/2015 8:01:52 PM	R28426
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	8/24/2015 8:01:52 PM	R28426
Surr: Dibromofluoromethane	96.1	70-130		%REC	1	8/24/2015 8:01:52 PM	R28426
Surr: Toluene-d8	95.9	70-130		%REC	1	8/24/2015 8:01:52 PM	R28426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 150821038
Project Name: 1508885

Analytical Results Report

Sample Number	150821038-001	Sampling Date	8/14/2015	Date/Time Received	8/21/2015 1:05 PM
Client Sample ID	1508885-002H / MW-1	Sampling Time	9:47 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/28/2015	MER	EPA 335.4	

Sample Number	150821038-002	Sampling Date	8/14/2015	Date/Time Received	8/21/2015 1:05 PM
Client Sample ID	1508885-003H / MW-2	Sampling Time	12:30 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/28/2015	MER	EPA 335.4	

Sample Number	150821038-003	Sampling Date	8/14/2015	Date/Time Received	8/21/2015 1:05 PM
Client Sample ID	1508885-004H / SMW-4	Sampling Time	2:41 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/28/2015	MER	EPA 335.4	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

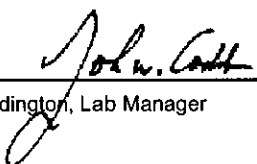
Batch #: 150821038
Project Name: 1508885

Analytical Results Report

Sample Number	150821038-004	Sampling Date	8/14/2015	Date/Time Received	8/21/2015 1:05 PM
Client Sample ID	1508885-005H / MW-5	Sampling Time	4:15 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/28/2015	MER	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 150821038
Project Name: 1508885

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.483	mg/L	0.5	96.6	90-110	8/28/2015	8/28/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
150821037-001	Cyanide	ND	0.458	mg/L	0.5	91.6	90-110	8/28/2015	8/28/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.468	mg/L	0.5	93.6	2.2	0-20	8/28/2015	8/28/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	8/28/2015	8/28/2015

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: B28648			RunNo: 28648					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867174		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867175		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.1	85	115			
Iron	0.52	0.020	0.5000	0	103	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Potassium	50	1.0	50.00	0	99.5	85	115			
Silver	0.093	0.0050	0.1000	0	93.1	85	115			
Sodium	51	1.0	50.00	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-21001		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861814		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21001		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861815		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.52	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Sample ID	LLLCS-21001		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861816		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	102	50	150			
Cadmium	0.0021	0.0020	0.002000	0	105	50	150			
Chromium	ND	0.0060	0.006000	0	95.2	50	150			
Copper	0.0061	0.0060	0.006000	0	101	50	150			
Iron	0.028	0.020	0.02000	0	139	50	150			
Manganese	ND	0.0020	0.002000	0	97.5	50	150			
Silver	0.0060	0.0050	0.005000	0	119	50	150			
Zinc	ND	0.010	0.005000	0	120	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-21023		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21023		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 863949		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21023		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21023		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 863950		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Chromium	0.49	0.0060	0.5000	0	97.0	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.2	85	115			
Manganese	0.48	0.0020	0.5000	0	96.8	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.0	85	115			

Sample ID	LLLCS-21023		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21023		RunNo: 28565					
Prep Date:	8/27/2015		Analysis Date: 8/31/2015		SeqNo: 863951		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	118	50	150			
Cadmium	0.0020	0.0020	0.002000	0	102	50	150			
Chromium	ND	0.0060	0.006000	0	92.2	50	150			
Copper	0.0078	0.0060	0.006000	0	130	50	150			
Iron	0.022	0.020	0.02000	0	111	50	150			
Manganese	ND	0.0020	0.002000	0	99.0	50	150			
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Zinc	ND	0.010	0.005000	0	105	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508885-002GMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MW-1		Batch ID: 21023			RunNo: 28565				
Prep Date:	8/27/2015		Analysis Date: 8/31/2015			SeqNo: 864304		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.01330	103	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.50	0.0060	0.5000	0	101	70	130			
Copper	0.53	0.0060	0.5000	0	105	70	130			
Iron	0.53	0.020	0.5000	0.04814	96.3	70	130			
Manganese	0.50	0.0020	0.5000	0.003290	100	70	130			
Silver	0.10	0.0050	0.1000	0	102	70	130			
Zinc	0.54	0.010	0.5000	0	108	70	130			

Sample ID	1508885-002GMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MW-1		Batch ID: 21023			RunNo: 28565				
Prep Date:	8/27/2015		Analysis Date: 8/31/2015			SeqNo: 864305		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.01330	104	70	130	0.835	20	
Cadmium	0.51	0.0020	0.5000	0	103	70	130	1.06	20	
Chromium	0.51	0.0060	0.5000	0	102	70	130	1.23	20	
Copper	0.53	0.0060	0.5000	0	106	70	130	0.415	20	
Iron	0.53	0.020	0.5000	0.04814	96.4	70	130	0.0698	20	
Manganese	0.51	0.0020	0.5000	0.003290	101	70	130	0.752	20	
Silver	0.10	0.0050	0.1000	0	102	70	130	0.284	20	
Zinc	0.54	0.010	0.5000	0	109	70	130	0.866	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: F28630			RunNo: 28630						
Prep Date:	Analysis Date: 9/2/2015			SeqNo: 866500		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	96.7	85	115			
Uranium	0.012	0.00050	0.01250	0	98.2	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: F28630			RunNo: 28630						
Prep Date:	Analysis Date: 9/2/2015			SeqNo: 866503		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050	0.0005000	0	98.9	50	150			
Uranium	ND	0.00050	0.0005000	0	96.0	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: F28630			RunNo: 28630						
Prep Date:	Analysis Date: 9/2/2015			SeqNo: 866506		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: C28672			RunNo: 28672						
Prep Date:	Analysis Date: 9/4/2015			SeqNo: 868549		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.027	0.0010	0.02500	0	107	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: C28672			RunNo: 28672						
Prep Date:	Analysis Date: 9/4/2015			SeqNo: 868552		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Selenium	0.0011	0.0010	0.001000	0	109	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: C28672			RunNo: 28672						
Prep Date:	Analysis Date: 9/4/2015			SeqNo: 868555		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: C28672			RunNo: 28672						
Prep Date:		Analysis Date: 9/4/2015			SeqNo: 868555		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	0.0010								
Selenium		ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-21001		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862407		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21001		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862409		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID	MSLLCS-21001		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862411		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	95.0	50	150			
Lead	0.00054	0.00050	0.0005000	0	108	50	150			
Selenium	ND	0.0010	0.001000	0	95.2	50	150			
Uranium	0.00052	0.00050	0.0005000	0	105	50	150			

Sample ID	MB-21023	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 21023			RunNo: 28551					
Prep Date:	8/27/2015	Analysis Date: 8/28/2015			SeqNo: 863618		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21023		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total						
Client ID:	LCSW		Batch ID: 21023		RunNo: 28551						
Prep Date:	8/27/2015		Analysis Date: 8/28/2015		SeqNo: 863620		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MSLCS-21023		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 21023		RunNo: 28551					
Prep Date:	8/27/2015		Analysis Date: 8/28/2015		SeqNo: 863620		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.0	85	115			
Lead	0.012	0.00050	0.01250	0	99.5	85	115			
Selenium	0.024	0.0010	0.02500	0	95.0	85	115			
Uranium	0.012	0.00050	0.01250	0	96.5	85	115			

Sample ID	MSLLCS-21023		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 21023		RunNo: 28551					
Prep Date:	8/27/2015		Analysis Date: 8/28/2015		SeqNo: 863622		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	91.6	50	150			
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Selenium	ND	0.0010	0.001000	0	94.8	50	150			
Uranium	ND	0.00050	0.0005000	0	97.7	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-21097	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	21097	RunNo:	28621					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866040	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-21097	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	21097	RunNo:	28621					
Prep Date:	9/1/2015	Analysis Date:	9/2/2015	SeqNo:	866041	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28382	RunNo:	28382					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856993	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28382	RunNo:	28382					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856994	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Chloride	4.8	0.50	5.000	0	96.0	90	110			
Bromide	2.5	0.10	2.500	0	99.5	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.4	90	110			
Sulfate	9.9	0.50	10.00	0	98.8	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28382	RunNo:	28382					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	857047	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28382	RunNo:	28382					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	857048	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	96.6	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110			
Sulfate	9.9	0.50	10.00	0	99.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28428	RunNo:	28428					
Prep Date:		Analysis Date:	8/24/2015	SeqNo:	858972	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28428	RunNo:	28428					
Prep Date:		Analysis Date:	8/24/2015	SeqNo:	858973	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.8	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28656	RunNo:	28656					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867742	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28656	RunNo:	28656					
Prep Date:		Analysis Date:	9/3/2015	SeqNo:	867743	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20873		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		100	72	136			

Sample ID	LCS-20873		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855913		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.8	52.4	154			
Surr: DNOP	0.47		0.5000		94.3	72	136			

Sample ID	1508885-002CMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MW-1		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855924		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	41.3	177			
Surr: DNOP	0.57		0.5000		114	72	136			

Sample ID	1508885-002CMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	MW-1		Batch ID:	20873		RunNo:	28342				
Prep Date:	8/19/2015		Analysis Date:	8/19/2015		SeqNo:	855962		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	-94.6	317	0.0774	22.1		
Surr: DNOP	0.55		0.5000		111	72	136	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	100 ng lcs		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R28426			RunNo: 28426				
Prep Date:	Analysis Date: 8/24/2015			SeqNo: 858944		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	20	1.0	20.00	0	98.8	70	130			
1,1-Dichloroethene	24	1.0	20.00	0	122	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Sample ID	RB	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28426			RunNo: 28426					
Prep Date:		Analysis Date: 8/24/2015			SeqNo: 858967		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	RB	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28426			RunNo: 28426					
Prep Date:		Analysis Date: 8/24/2015			SeqNo: 858967	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	RB	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28426			RunNo: 28426					
Prep Date:		Analysis Date: 8/24/2015			SeqNo: 858967		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.7	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20889		SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID: 20889			RunNo: 28422				
Prep Date:	8/20/2015		Analysis Date: 8/24/2015			SeqNo: 858874		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20889	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20889	RunNo:	28422					
Prep Date:	8/20/2015	Analysis Date:	8/24/2015	SeqNo:	858874	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		68.3	14.9	111			
Surr: Phenol-d5	140		200.0		70.9	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		70.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		73.8	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.1	21.3	123			
Surr: 4-Terphenyl-d14	51		100.0		51.5	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	Ics-20889		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858875		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.7	47.8	99.7			
4-Chloro-3-methylphenol	140	10	200.0	0	68.0	58.1	103			
2-Chlorophenol	140	10	200.0	0	70.6	49.5	96.8			
1,4-Dichlorobenzene	68	10	100.0	0	67.6	40.4	89.4			
2,4-Dinitrotoluene	52	10	100.0	0	51.6	38.6	91.3			
N-Nitrosodi-n-propylamine	67	10	100.0	0	67.4	53.9	95.6			
4-Nitrophenol	130	10	200.0	0	62.7	26.4	108			
Pentachlorophenol	110	20	200.0	0	55.9	36.5	86.6			
Phenol	140	10	200.0	0	68.3	29.3	108			
Pyrene	71	10	100.0	0	71.1	45.7	100			
1,2,4-Trichlorobenzene	73	10	100.0	0	73.3	39.3	94.5			
Surr: 2-Fluorophenol	140		200.0		68.0	14.9	111			
Surr: Phenol-d5	130		200.0		66.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.3	15.7	154			
Surr: Nitrobenzene-d5	68		100.0		67.5	47.8	106			
Surr: 2-Fluorobiphenyl	68		100.0		67.5	21.3	123			
Surr: 4-Terphenyl-d14	55		100.0		55.4	14.3	135			

Sample ID	Icsd-20889		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858876		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.2	47.8	99.7	10.5	28.2	
4-Chloro-3-methylphenol	160	10	200.0	0	80.6	58.1	103	16.9	24.4	
2-Chlorophenol	170	10	200.0	0	87.0	49.5	96.8	20.9	28.1	
1,4-Dichlorobenzene	78	10	100.0	0	78.2	40.4	89.4	14.5	31.2	
2,4-Dinitrotoluene	50	10	100.0	0	50.1	38.6	91.3	3.07	44.4	
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.6	53.9	95.6	12.8	24.2	
4-Nitrophenol	120	10	200.0	0	61.2	26.4	108	2.37	36.6	
Pentachlorophenol	130	20	200.0	0	67.5	36.5	86.6	18.8	29.5	
Phenol	170	10	200.0	0	84.5	29.3	108	21.2	30	
Pyrene	77	10	100.0	0	76.7	45.7	100	7.53	31	
1,2,4-Trichlorobenzene	90	10	100.0	0	89.8	39.3	94.5	20.3	24	
Surr: 2-Fluorophenol	150		200.0		77.4	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		81.4	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	82		100.0		82.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	Icsd-20889		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858876		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	62		100.0		61.7	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508885

18-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	2.5ug gro lcs		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: A28370		RunNo: 28370					
Prep Date:			Analysis Date: 8/20/2015		SeqNo: 856969		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	97.1	80.6	122			
Surr: BFB	10		10.00		102	70	130			

Sample ID	rb4	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: A28370			RunNo: 28370					
Prep Date:		Analysis Date: 8/20/2015			SeqNo: 856970		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		104	70	130			

Sample ID	1508885-003B MS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MW-2		Batch ID: A28370		RunNo: 28370					
Prep Date:			Analysis Date: 8/21/2015		SeqNo: 856974		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	88.1	53.8	128			
Surr: BFB	10		10.00		102	70	130			

Sample ID	1508885-003B MSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	MW-2		Batch ID:	A28370		RunNo:	28370				
Prep Date:			Analysis Date:	8/21/2015		SeqNo:	856975		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	0.41	0.050	0.5000	0	82.4	53.8	128	6.62	20		
Surr: BFB	10		10.00		101	70	130	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508885

RcptNo: 1

Received by/date:

AT 08/19/15

Logged By: Anne Thorne

8/19/2015 10:00:00 AM

Anne Thorne

Completed By: Anne Thorne

8/19/2015

Anne Thorne

Reviewed By:

[Signature]

08/19/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of >0° C to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

12, 4
(*<2 or >12 unless noted*)

Adjusted?

no

Checked by:

CS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 16, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 3rd Quarter/Annual-OW Wells

OrderNo.: 1508890

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 7:00:00 AM

Lab ID: 1508890-001

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Toluene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Ethylbenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Naphthalene	ND	2.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
2-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Acetone	ND	10		µg/L	1	8/21/2015 12:30:23 AM	A28360
Bromobenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Bromodichloromethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Bromoform	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Bromomethane	ND	3.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
2-Butanone	ND	10		µg/L	1	8/21/2015 12:30:23 AM	A28360
Carbon disulfide	ND	10		µg/L	1	8/21/2015 12:30:23 AM	A28360
Carbon Tetrachloride	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Chlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Chloroethane	ND	2.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Chloroform	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Chloromethane	ND	3.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
2-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
4-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
cis-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Dibromochloromethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Dibromomethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,1-Dichloroethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,1-Dichloroethene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,3-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
2,2-Dichloropropane	ND	2.0		µg/L	1	8/21/2015 12:30:23 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 7:00:00 AM

Lab ID: 1508890-001

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Hexachlorobutadiene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
2-Hexanone	ND	10		µg/L	1	8/21/2015 12:30:23 AM	A28360
Isopropylbenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
4-Isopropyltoluene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
4-Methyl-2-pentanone	ND	10		µg/L	1	8/21/2015 12:30:23 AM	A28360
Methylene Chloride	ND	3.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
n-Butylbenzene	ND	3.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
n-Propylbenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
sec-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Styrene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
tert-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
trans-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Trichlorofluoromethane	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Vinyl chloride	ND	1.0		µg/L	1	8/21/2015 12:30:23 AM	A28360
Xylenes, Total	ND	1.5		µg/L	1	8/21/2015 12:30:23 AM	A28360
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/21/2015 12:30:23 AM	A28360
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	8/21/2015 12:30:23 AM	A28360
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/21/2015 12:30:23 AM	A28360
Surr: Toluene-d8	98.3	70-130		%REC	1	8/21/2015 12:30:23 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 10:05:00 AM

Lab ID: 1508890-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:41:50 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 9:19:27 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:41:50 PM	C28672
Uranium	0.016	0.0025		mg/L	5	9/2/2015 9:19:27 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.29	0.10		mg/L	1	8/19/2015 9:42:32 PM	R28338
Chloride	18	0.50		mg/L	1	8/19/2015 9:42:32 PM	R28338
Bromide	0.13	0.10		mg/L	1	8/19/2015 9:42:32 PM	R28338
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/19/2015 9:42:32 PM	R28338
Sulfate	140	10		mg/L	20	8/19/2015 9:54:57 PM	R28338
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/3/2015 3:56:18 AM	R28639
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.021	0.0020		mg/L	1	9/3/2015 6:45:53 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 5:21:11 PM	A28648
Calcium	1.7	1.0		mg/L	1	9/3/2015 5:21:11 PM	A28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 5:21:11 PM	A28648
Copper	ND	0.0060		mg/L	1	9/3/2015 5:21:11 PM	A28648
Iron	ND	0.020		mg/L	1	9/3/2015 5:21:11 PM	A28648
Magnesium	ND	1.0		mg/L	1	9/3/2015 5:21:11 PM	A28648
Manganese	0.0051	0.0020		mg/L	1	9/3/2015 5:21:11 PM	A28648
Potassium	ND	1.0		mg/L	1	9/3/2015 5:21:11 PM	A28648
Silver	ND	0.0050		mg/L	1	9/3/2015 5:21:11 PM	A28648
Sodium	300	5.0		mg/L	5	9/3/2015 5:23:10 PM	A28648
Zinc	0.036	0.010		mg/L	1	9/3/2015 6:45:53 PM	D28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	8/27/2015 5:18:41 PM	21001
Cadmium	ND	0.0020		mg/L	1	8/27/2015 5:18:41 PM	21001
Chromium	ND	0.0060		mg/L	1	8/27/2015 5:18:41 PM	21001
Copper	ND	0.0060		mg/L	1	8/27/2015 5:18:41 PM	21001
Iron	ND	0.020		mg/L	1	8/27/2015 5:18:41 PM	21001
Manganese	0.0052	0.0020		mg/L	1	8/27/2015 5:18:41 PM	21001
Silver	ND	0.0050		mg/L	1	8/27/2015 5:18:41 PM	21001
Zinc	ND	0.010		mg/L	1	8/27/2015 5:18:41 PM	21001
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	8/28/2015 8:49:25 PM	21001
Lead	ND	0.00050		mg/L	1	8/28/2015 8:49:25 PM	21001
Selenium	ND	0.0010		mg/L	1	8/28/2015 8:49:25 PM	21001

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 10:05:00 AM

Lab ID: 1508890-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.016	0.00050		mg/L	1	8/28/2015 8:49:25 PM	21001
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/3/2015 12:02:40 PM	21115
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 12:57:52 AM	C28360
Surr: BFB	100	70-130		%REC	1	8/21/2015 12:57:52 AM	C28360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/19/2015 5:33:36 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/19/2015 5:33:36 PM	20873
Surr: DNOP	115	72-136		%REC	1	8/19/2015 5:33:36 PM	20873
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 4:06:40 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 10:05:00 AM

Lab ID: 1508890-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 4:06:40 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 4:06:40 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 4:06:40 AM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 4:06:40 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 10:05:00 AM

Lab ID: 1508890-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 4:06:40 AM	20889
Surr: 2-Fluorophenol	48.9	14.9-111		%REC	1	8/25/2015 4:06:40 AM	20889
Surr: Phenol-d5	45.0	11.3-108		%REC	1	8/25/2015 4:06:40 AM	20889
Surr: 2,4,6-Tribromophenol	68.0	15.7-154		%REC	1	8/25/2015 4:06:40 AM	20889
Surr: Nitrobenzene-d5	64.3	47.8-106		%REC	1	8/25/2015 4:06:40 AM	20889
Surr: 2-Fluorobiphenyl	61.4	21.3-123		%REC	1	8/25/2015 4:06:40 AM	20889
Surr: 4-Terphenyl-d14	116	14.3-135		%REC	1	8/25/2015 4:06:40 AM	20889
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Toluene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Ethylbenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Naphthalene	ND	2.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
2-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Acetone	ND	10		µg/L	1	8/21/2015 12:57:52 AM	A28360
Bromobenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Bromodichloromethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Bromoform	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Bromomethane	ND	3.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
2-Butanone	ND	10		µg/L	1	8/21/2015 12:57:52 AM	A28360
Carbon disulfide	ND	10		µg/L	1	8/21/2015 12:57:52 AM	A28360
Carbon Tetrachloride	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Chlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Chloroethane	ND	2.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Chloroform	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Chloromethane	ND	3.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
2-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
4-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
cis-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 10:05:00 AM

Lab ID: 1508890-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Dibromochloromethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Dibromomethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,1-Dichloroethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,1-Dichloroethene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,3-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
2,2-Dichloropropane	ND	2.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,1-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Hexachlorobutadiene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
2-Hexanone	ND	10		µg/L	1	8/21/2015 12:57:52 AM	A28360
Isopropylbenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
4-Isopropyltoluene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
4-Methyl-2-pentanone	ND	10		µg/L	1	8/21/2015 12:57:52 AM	A28360
Methylene Chloride	ND	3.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
n-Butylbenzene	ND	3.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
n-Propylbenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
sec-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Styrene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
tert-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
trans-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Trichlorofluoromethane	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Vinyl chloride	ND	1.0		µg/L	1	8/21/2015 12:57:52 AM	A28360
Xylenes, Total	ND	1.5		µg/L	1	8/21/2015 12:57:52 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 10:05:00 AM

Lab ID: 1508890-002

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%REC	1	8/21/2015 12:57:52 AM	A28360
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	8/21/2015 12:57:52 AM	A28360
Surr: Dibromofluoromethane	114	70-130		%REC	1	8/21/2015 12:57:52 AM	A28360
Surr: Toluene-d8	97.7	70-130		%REC	1	8/21/2015 12:57:52 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 11:00:00 AM

Lab ID: 1508890-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/4/2015 2:44:54 PM	C28672
Lead	ND	0.0025		mg/L	5	9/2/2015 9:22:30 PM	F28630
Selenium	ND	0.010		mg/L	10	9/4/2015 2:44:54 PM	C28672
Uranium	0.12	0.0025	*	mg/L	5	9/2/2015 9:22:30 PM	F28630
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	2.0		mg/L	20	8/19/2015 10:19:48 PM	R28338
Chloride	3000	100		mg/L	200	9/1/2015 9:21:40 PM	R28611
Bromide	5.1	2.0		mg/L	20	8/19/2015 10:19:48 PM	R28338
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/19/2015 10:07:23 PM	R28338
Sulfate	1600	50		mg/L	100	8/28/2015 9:36:47 PM	R28543
Nitrate+Nitrite as N	ND	4.0		mg/L	20	9/3/2015 4:08:43 AM	R28639
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.015	0.0020		mg/L	1	9/3/2015 6:47:56 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 5:25:10 PM	A28648
Calcium	270	5.0		mg/L	5	9/3/2015 5:27:06 PM	A28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 5:25:10 PM	A28648
Copper	ND	0.0060		mg/L	1	9/3/2015 5:25:10 PM	A28648
Iron	0.022	0.020		mg/L	1	9/3/2015 5:25:10 PM	A28648
Magnesium	88	1.0		mg/L	1	9/3/2015 5:25:10 PM	A28648
Manganese	0.31	0.0020	*	mg/L	1	9/3/2015 5:25:10 PM	A28648
Potassium	1.4	1.0		mg/L	1	9/3/2015 5:25:10 PM	A28648
Silver	ND	0.0050		mg/L	1	9/3/2015 5:25:10 PM	A28648
Sodium	2100	50		mg/L	50	9/4/2015 5:26:08 PM	A28671
Zinc	0.024	0.010		mg/L	1	9/3/2015 6:47:56 PM	D28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	8/27/2015 5:20:44 PM	21001
Cadmium	ND	0.0020		mg/L	1	8/27/2015 5:20:44 PM	21001
Chromium	0.0071	0.0060		mg/L	1	8/27/2015 5:20:44 PM	21001
Copper	ND	0.0060		mg/L	1	8/27/2015 5:20:44 PM	21001
Iron	0.26	0.020		mg/L	1	8/27/2015 5:20:44 PM	21001
Manganese	0.33	0.0020	*	mg/L	1	8/27/2015 5:20:44 PM	21001
Silver	ND	0.0050		mg/L	1	8/27/2015 5:20:44 PM	21001
Zinc	ND	0.010		mg/L	1	8/27/2015 5:20:44 PM	21001
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/1/2015 8:45:45 PM	21001
Lead	ND	0.0050		mg/L	10	9/1/2015 8:45:45 PM	21001
Selenium	ND	0.010		mg/L	10	9/1/2015 8:45:45 PM	21001

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 11:00:00 AM

Lab ID: 1508890-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.12	0.0050	*	mg/L	10	9/1/2015 8:45:45 PM	21001
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/3/2015 12:04:43 PM	21115
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.78	0.050		mg/L	1	8/21/2015 2:20:34 AM	C28360
Surr: BFB	104	70-130		%REC	1	8/21/2015 2:20:34 AM	C28360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/19/2015 6:00:56 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/19/2015 6:00:56 PM	20873
Surr: DNOP	115	72-136		%REC	1	8/19/2015 6:00:56 PM	20873
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Aniline	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 4:48:38 PM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 11:00:00 AM

Lab ID: 1508890-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 4:48:38 PM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 4:48:38 PM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 4:48:38 PM	20889
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 4:48:38 PM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 11:00:00 AM

Lab ID: 1508890-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 4:48:38 PM	20889
Surr: 2-Fluorophenol	25.0	14.9-111		%REC	1	8/25/2015 4:48:38 PM	20889
Surr: Phenol-d5	25.8	11.3-108		%REC	1	8/25/2015 4:48:38 PM	20889
Surr: 2,4,6-Tribromophenol	37.0	15.7-154		%REC	1	8/25/2015 4:48:38 PM	20889
Surr: Nitrobenzene-d5	80.9	47.8-106		%REC	1	8/25/2015 4:48:38 PM	20889
Surr: 2-Fluorobiphenyl	80.5	21.3-123		%REC	1	8/25/2015 4:48:38 PM	20889
Surr: 4-Terphenyl-d14	142	14.3-135	S	%REC	1	8/25/2015 4:48:38 PM	20889
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Toluene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Ethylbenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Methyl tert-butyl ether (MTBE)	11	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Naphthalene	ND	2.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
2-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Acetone	ND	10		µg/L	1	8/21/2015 2:20:34 AM	A28360
Bromobenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Bromodichloromethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Bromoform	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Bromomethane	ND	3.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
2-Butanone	ND	10		µg/L	1	8/21/2015 2:20:34 AM	A28360
Carbon disulfide	ND	10		µg/L	1	8/21/2015 2:20:34 AM	A28360
Carbon Tetrachloride	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Chlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Chloroethane	ND	2.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Chloroform	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Chloromethane	ND	3.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
2-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
4-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
cis-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 11:00:00 AM

Lab ID: 1508890-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Dibromochloromethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Dibromomethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,1-Dichloroethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,1-Dichloroethene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,3-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
2,2-Dichloropropane	ND	2.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,1-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Hexachlorobutadiene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
2-Hexanone	ND	10		µg/L	1	8/21/2015 2:20:34 AM	A28360
Isopropylbenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
4-Isopropyltoluene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
4-Methyl-2-pentanone	ND	10		µg/L	1	8/21/2015 2:20:34 AM	A28360
Methylene Chloride	ND	3.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
n-Butylbenzene	ND	3.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
n-Propylbenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
sec-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Styrene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
tert-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
trans-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Trichlorofluoromethane	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Vinyl chloride	ND	1.0		µg/L	1	8/21/2015 2:20:34 AM	A28360
Xylenes, Total	ND	1.5		µg/L	1	8/21/2015 2:20:34 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 11:00:00 AM

Lab ID: 1508890-003

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	8/21/2015 2:20:34 AM	A28360
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	8/21/2015 2:20:34 AM	A28360
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/21/2015 2:20:34 AM	A28360
Surr: Toluene-d8	101	70-130		%REC	1	8/21/2015 2:20:34 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 1:55:00 PM

Lab ID: 1508890-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/2/2015 9:25:33 PM	F28630
Lead	ND	0.0025		mg/L	5	9/2/2015 9:25:33 PM	F28630
Selenium	0.0083	0.0050		mg/L	5	9/2/2015 9:25:33 PM	F28630
Uranium	0.21	0.010	*	mg/L	20	9/4/2015 2:54:06 PM	C28672
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.9	0.10		mg/L	1	8/19/2015 10:32:12 PM	R28338
Chloride	100	10		mg/L	20	8/19/2015 10:44:37 PM	R28338
Bromide	0.35	0.10		mg/L	1	8/19/2015 10:32:12 PM	R28338
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/19/2015 10:32:12 PM	R28338
Sulfate	880	10		mg/L	20	8/19/2015 10:44:37 PM	R28338
Nitrate+Nitrite as N	2.1	1.0		mg/L	5	9/3/2015 4:21:07 AM	R28639
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.0074	0.0020		mg/L	1	9/3/2015 6:50:00 PM	D28647
Cadmium	ND	0.0020		mg/L	1	9/3/2015 5:29:09 PM	A28648
Calcium	9.2	1.0		mg/L	1	9/3/2015 5:29:09 PM	A28648
Chromium	ND	0.0060		mg/L	1	9/3/2015 5:29:09 PM	A28648
Copper	ND	0.0060		mg/L	1	9/3/2015 5:29:09 PM	A28648
Iron	ND	0.020		mg/L	1	9/3/2015 5:29:09 PM	A28648
Magnesium	1.2	1.0		mg/L	1	9/3/2015 5:29:09 PM	A28648
Manganese	0.015	0.0020		mg/L	1	9/3/2015 5:29:09 PM	A28648
Potassium	1.8	1.0		mg/L	1	9/3/2015 5:29:09 PM	A28648
Silver	ND	0.0050		mg/L	1	9/3/2015 5:29:09 PM	A28648
Sodium	610	10		mg/L	10	9/4/2015 5:28:04 PM	A28671
Zinc	ND	0.010		mg/L	1	9/3/2015 6:50:00 PM	D28647
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.0076	0.0020		mg/L	1	8/27/2015 5:22:33 PM	21001
Cadmium	ND	0.0020		mg/L	1	8/27/2015 5:22:33 PM	21001
Chromium	ND	0.0060		mg/L	1	8/27/2015 5:22:33 PM	21001
Copper	ND	0.0060		mg/L	1	8/27/2015 5:22:33 PM	21001
Iron	0.025	0.020		mg/L	1	8/27/2015 5:22:33 PM	21001
Manganese	0.015	0.0020		mg/L	1	8/27/2015 5:22:33 PM	21001
Silver	ND	0.0050		mg/L	1	8/27/2015 5:22:33 PM	21001
Zinc	ND	0.010		mg/L	1	8/27/2015 5:22:33 PM	21001
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/1/2015 8:48:45 PM	21001
Lead	ND	0.00050		mg/L	1	8/28/2015 8:59:42 PM	21001
Selenium	ND	0.010		mg/L	10	9/1/2015 8:48:45 PM	21001

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 1:55:00 PM

Lab ID: 1508890-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.23	0.0050	*	mg/L	10	9/1/2015 8:48:45 PM	21001
EPA METHOD 245.1: MERCURY							Analyst: MED
Mercury	ND	0.00020		mg/L	1	9/3/2015 12:06:45 PM	21115
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 2:48:04 AM	C28360
Surr: BFB	98.1	70-130		%REC	1	8/21/2015 2:48:04 AM	C28360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/19/2015 6:27:53 PM	20873
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/19/2015 6:27:53 PM	20873
Surr: DNOP	121	72-136		%REC	1	8/19/2015 6:27:53 PM	20873
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Toluene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Ethylbenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Naphthalene	ND	2.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
2-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Acetone	ND	10		µg/L	1	8/21/2015 2:48:04 AM	A28360
Bromobenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Bromodichloromethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Bromoform	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Bromomethane	ND	3.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
2-Butanone	ND	10		µg/L	1	8/21/2015 2:48:04 AM	A28360
Carbon disulfide	ND	10		µg/L	1	8/21/2015 2:48:04 AM	A28360
Carbon Tetrachloride	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Chlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Chloroethane	ND	2.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Chloroform	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Chloromethane	ND	3.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
2-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
4-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
cis-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 1:55:00 PM

Lab ID: 1508890-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Dibromochloromethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Dibromomethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,1-Dichloroethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,1-Dichloroethene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,3-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
2,2-Dichloropropane	ND	2.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,1-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Hexachlorobutadiene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
2-Hexanone	ND	10		µg/L	1	8/21/2015 2:48:04 AM	A28360
Isopropylbenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
4-Isopropyltoluene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
4-Methyl-2-pentanone	ND	10		µg/L	1	8/21/2015 2:48:04 AM	A28360
Methylene Chloride	ND	3.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
n-Butylbenzene	ND	3.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
n-Propylbenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
sec-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Styrene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
tert-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
trans-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Trichlorofluoromethane	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Vinyl chloride	ND	1.0		µg/L	1	8/21/2015 2:48:04 AM	A28360
Xylenes, Total	ND	1.5		µg/L	1	8/21/2015 2:48:04 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 1:55:00 PM

Lab ID: 1508890-004

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%REC	1	8/21/2015 2:48:04 AM	A28360
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	8/21/2015 2:48:04 AM	A28360
Surr: Dibromofluoromethane	111	70-130		%REC	1	8/21/2015 2:48:04 AM	A28360
Surr: Toluene-d8	96.5	70-130		%REC	1	8/21/2015 2:48:04 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015

Lab ID: 1508890-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/21/2015 3:15:41 AM	C28360
Surr: BFB	100	70-130		%REC	1	8/21/2015 3:15:41 AM	C28360
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Toluene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Ethylbenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Naphthalene	ND	2.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
2-Methylnaphthalene	ND	4.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Acetone	ND	10		µg/L	1	8/21/2015 3:15:41 AM	A28360
Bromobenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Bromodichloromethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Bromoform	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Bromomethane	ND	3.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
2-Butanone	ND	10		µg/L	1	8/21/2015 3:15:41 AM	A28360
Carbon disulfide	ND	10		µg/L	1	8/21/2015 3:15:41 AM	A28360
Carbon Tetrachloride	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Chlorobenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Chloroethane	ND	2.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Chloroform	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Chloromethane	ND	3.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
2-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
4-Chlorotoluene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
cis-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Dibromochloromethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Dibromomethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,1-Dichloroethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,1-Dichloroethene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015

Lab ID: 1508890-005

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,3-Dichloropropane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
2,2-Dichloropropane	ND	2.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,1-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Hexachlorobutadiene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
2-Hexanone	ND	10		µg/L	1	8/21/2015 3:15:41 AM	A28360
Isopropylbenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
4-Isopropyltoluene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
4-Methyl-2-pentanone	ND	10		µg/L	1	8/21/2015 3:15:41 AM	A28360
Methylene Chloride	ND	3.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
n-Butylbenzene	ND	3.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
n-Propylbenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
sec-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Styrene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
tert-Butylbenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
trans-1,2-DCE	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Trichlorofluoromethane	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Vinyl chloride	ND	1.0		µg/L	1	8/21/2015 3:15:41 AM	A28360
Xylenes, Total	ND	1.5		µg/L	1	8/21/2015 3:15:41 AM	A28360
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	1	8/21/2015 3:15:41 AM	A28360
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	8/21/2015 3:15:41 AM	A28360
Surr: Dibromofluoromethane	113	70-130		%REC	1	8/21/2015 3:15:41 AM	A28360
Surr: Toluene-d8	103	70-130		%REC	1	8/21/2015 3:15:41 AM	A28360

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 7:00:00 AM

Lab ID: 1508890-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Acenaphthylene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Aniline	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Anthracene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Azobenzene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Benz(a)anthracene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Benzoic acid	ND	20		µg/L	1	8/25/2015 5:06:18 AM	20889
Benzyl alcohol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Carbazole	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
4-Chloroaniline	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2-Chlorophenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Chrysene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Dibenzofuran	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Diethyl phthalate	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Dimethyl phthalate	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2015 5:06:18 AM	20889
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2015 5:06:18 AM	20889
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2015 5:06:18 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508890

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 3rd Quarter/Annual-OW Wells

Collection Date: 8/17/2015 7:00:00 AM

Lab ID: 1508890-006

Matrix: AQUEOUS

Received Date: 8/19/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Fluoranthene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Fluorene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Hexachlorobenzene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Hexachloroethane	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Isophorone	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2-Methylphenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
3+4-Methylphenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Naphthalene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2-Nitroaniline	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
3-Nitroaniline	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
4-Nitroaniline	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Nitrobenzene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2-Nitrophenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
4-Nitrophenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Pentachlorophenol	ND	20		µg/L	1	8/25/2015 5:06:18 AM	20889
Phenanthrene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Phenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Pyrene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Pyridine	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2015 5:06:18 AM	20889
Surr: 2-Fluorophenol	81.9	14.9-111		%REC	1	8/25/2015 5:06:18 AM	20889
Surr: Phenol-d5	72.4	11.3-108		%REC	1	8/25/2015 5:06:18 AM	20889
Surr: 2,4,6-Tribromophenol	106	15.7-154		%REC	1	8/25/2015 5:06:18 AM	20889
Surr: Nitrobenzene-d5	100	47.8-106		%REC	1	8/25/2015 5:06:18 AM	20889
Surr: 2-Fluorobiphenyl	100	21.3-123		%REC	1	8/25/2015 5:06:18 AM	20889
Surr: 4-Terphenyl-d14	220	14.3-135	S	%REC	1	8/25/2015 5:06:18 AM	20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 150821037
Project Name: 1508890

Analytical Results Report

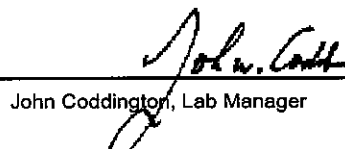
Sample Number 150821037-001 **Sampling Date** 8/17/2015 **Date/Time Received** 8/21/2015 1:05 PM
Client Sample ID 1508890-002H / MW-4 **Sampling Time** 10:05 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/28/2015	MER	EPA 335.4	

Sample Number 150821037-002 **Sampling Date** 8/17/2015 **Date/Time Received** 8/21/2015 1:05 PM
Client Sample ID 1508890-003H / SMW-2 **Sampling Time** 11:00 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.045	mg/L	0.01	8/28/2015	MER	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 150821037
Project Name: 1508890

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.483	mg/L	0.5	96.6	90-110	8/28/2015	8/28/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
150821037-001	Cyanide	ND	0.458	mg/L	0.5	91.6	90-110	8/28/2015	8/28/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.468	mg/L	0.5	93.6	2.2	0-20	8/28/2015	8/28/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	8/28/2015	8/28/2015

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:Cert0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A28648		RunNo:	28648			
Prep Date:			Analysis Date:	9/3/2015		SeqNo:	867171	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A28648		RunNo:	28648			
Prep Date:			Analysis Date:	9/3/2015		SeqNo:	867172	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.0	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Potassium	49	1.0	50.00	0	98.2	85	115			
Silver	0.086	0.0050	0.1000	0	86.4	85	115			
Sodium	51	1.0	50.00	0	101	85	115			

Sample ID	LLLCS		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A28648		RunNo:	28648			
Prep Date:			Analysis Date:	9/3/2015		SeqNo:	867173	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020	0.002000	0	98.0	50	150			
Calcium	ND	1.0	0.5000	0	99.9	50	150			
Chromium	0.0064	0.0060	0.006000	0	107	50	150			
Copper	0.0064	0.0060	0.006000	0	107	50	150			
Iron	ND	0.020	0.02000	0	81.2	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Potassium	ND	1.0	0.5000	0	98.6	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LLLCS	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID: A28648			RunNo: 28648					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867173		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050	0.005000	0	69.6	50	150			
Sodium	ND	1.0	0.5000	0	102	50	150			

Sample ID	1508656-002FMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867190		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	98.3	70	130			

Sample ID	1508656-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28648		RunNo: 28648					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867191		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	99.9	70	130	1.70	20	

Sample ID	1508656-004DMS			SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	A28648		RunNo:	28648			
Prep Date:				Analysis Date:	9/3/2015		SeqNo:	867201		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chromium	0.47	0.0060	0.5000	0	95.0	70	130				

Sample ID	1508656-004DMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	A28648		RunNo:	28648			
Prep Date:				Analysis Date:	9/3/2015		SeqNo:	867202		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chromium	0.48	0.0060	0.5000	0	95.7	70	130	0.747	20		

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: D28647			RunNo: 28647					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867614		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867615		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Zinc	0.49	0.010	0.5000	0	98.2	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867616		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	80.0	50	150			
Zinc	ND	0.010	0.005000	0	99.0	50	150			

Sample ID	1508828-001HMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867683		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.62	0.0020	0.5000	0.1091	102	70	130			
Zinc	0.54	0.010	0.5000	0.004950	107	70	130			

Sample ID	1508828-001HMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867684		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.62	0.0020	0.5000	0.1091	103	70	130	0.451	20	
Zinc	0.55	0.010	0.5000	0.004950	109	70	130	1.20	20	

Sample ID	1508881-001FMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: D28647			RunNo: 28647				
Prep Date:			Analysis Date: 9/3/2015			SeqNo: 867695		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0020	0.5000	0.06041	103	70	130			
Zinc	0.56	0.010	0.5000	0.02628	107	70	130			

Sample ID	1508881-001FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	D28647		RunNo:	28647				
Prep Date:			Analysis Date:	9/3/2015		SeqNo:	867696		Units: mg/L		
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508881-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867696		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0020	0.5000	0.06041	104	70	130	0.945	20	
Zinc	0.57	0.010	0.5000	0.02628	108	70	130	0.898	20	

Sample ID	1508883-001FMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867698		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.04691	102	70	130			
Zinc	0.55	0.010	0.5000	0.01248	107	70	130			

Sample ID	1508883-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D28647		RunNo: 28647					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867705		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.04691	104	70	130	1.90	20	
Zinc	0.56	0.010	0.5000	0.01248	110	70	130	2.10	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A28671			RunNo: 28671					
Prep Date:		Analysis Date: 9/4/2015			SeqNo: 868399		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868400		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	51	1.0	50.00	0	101	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A28671		RunNo: 28671					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868401		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	106	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-21001		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861814		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21001		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861815		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.52	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Sample ID	LLLCS-21001		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 21001		RunNo: 28494					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 861816		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	102	50	150			
Cadmium	0.0021	0.0020	0.002000	0	105	50	150			
Chromium	ND	0.0060	0.006000	0	95.2	50	150			
Copper	0.0061	0.0060	0.006000	0	101	50	150			
Iron	0.028	0.020	0.02000	0	139	50	150			
Manganese	ND	0.0020	0.002000	0	97.5	50	150			
Silver	0.0060	0.0050	0.005000	0	119	50	150			
Zinc	ND	0.010	0.005000	0	120	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID 1508884-005EMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: F28630		RunNo: 28630							
Prep Date:	Analysis Date: 9/2/2015		SeqNo: 866470		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.062	0.0025	0.06250	0.0004283	98.4	70	130			
Uranium	0.067	0.0025	0.06250	0.001527	105	70	130			

Sample ID 1508A59-002AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: F28630		RunNo: 28630							
Prep Date:	Analysis Date: 9/2/2015		SeqNo: 866489		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0008826	99.3	70	130			
Lead	0.013	0.00050	0.01250	0.0008756	99.5	70	130			
Selenium	0.024	0.0010	0.02500	0.0009459	93.9	70	130			
Uranium	0.019	0.00050	0.01250	0.005620	107	70	130			

Sample ID 1508A59-002AMSD	SampType: MSD		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: F28630		RunNo: 28630							
Prep Date:	Analysis Date: 9/2/2015		SeqNo: 866490		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0008826	99.7	70	130	0.376	20	
Lead	0.014	0.00050	0.01250	0.0008756	102	70	130	1.93	20	
Selenium	0.024	0.0010	0.02500	0.0009459	92.9	70	130	0.974	20	
Uranium	0.019	0.00050	0.01250	0.005620	109	70	130	1.08	20	

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: F28630		RunNo: 28630							
Prep Date:	Analysis Date: 9/2/2015		SeqNo: 866500		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.012	0.00050	0.01250	0	96.7	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	98.2	85	115			

Sample ID LLLCS	SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: F28630		RunNo: 28630							
Prep Date:	Analysis Date: 9/2/2015		SeqNo: 866503		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Lead	ND	0.00050	0.0005000	0	98.9	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: F28630		RunNo: 28630					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866503		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0012	0.0010	0.001000	0	117	50	150			
Uranium	ND	0.00050	0.0005000	0	96.0	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: F28630			RunNo: 28630					
Prep Date:		Analysis Date: 9/2/2015			SeqNo: 866506		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	1508A04-001CMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C28672		RunNo: 28672					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868493		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002037	97.3	70	130			
Selenium	0.024	0.0010	0.02500	0.0008049	94.2	70	130			

Sample ID	1508A04-001CMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C28672		RunNo: 28672					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868494		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002037	96.8	70	130	0.474	20	
Selenium	0.024	0.0010	0.02500	0.0008049	93.8	70	130	0.392	20	

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C28672		RunNo: 28672					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868549		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C28672		RunNo: 28672					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868552		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Selenium	0.0011	0.0010	0.001000	0	109	50	150			
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: C28672		RunNo: 28672					
Prep Date:			Analysis Date: 9/4/2015		SeqNo: 868555		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508A70-002AMSDL		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	BatchQC		Batch ID:	21001		RunNo:	28517				
Prep Date:	8/26/2015		Analysis Date:	8/27/2015		SeqNo:	862398		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.032	0.0010	0.02500	0.007841	97.3	70	130	3.14	20		

Sample ID	1508A70-002AMSL			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC			Batch ID:	21001		RunNo:	28517			
Prep Date:	8/26/2015			Analysis Date:	8/27/2015		SeqNo:	862400		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.033	0.0010	0.02500	0.007841	101	70	130				

Sample ID	MB-21001	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 21001			RunNo: 28517					
Prep Date:	8/26/2015	Analysis Date: 8/27/2015			SeqNo: 862407		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21001		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862409		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID	MSLLCS-21001		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 21001		RunNo: 28517					
Prep Date:	8/26/2015		Analysis Date: 8/27/2015		SeqNo: 862411		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	95.0	50	150			
Lead	0.00054	0.00050	0.0005000	0	108	50	150			
Selenium	ND	0.0010	0.001000	0	95.2	50	150			
Uranium	0.00052	0.00050	0.0005000	0	105	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-21115	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	21115	RunNo:	28645					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	867062	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-21115	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	21115	RunNo:	28645					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	867063	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.1	80	120			

Sample ID	1508D51-002EMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	21115	RunNo:	28645					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	867077	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	75	125			

Sample ID	1508D51-002EMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	21115	RunNo:	28645					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	867078	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.6	75	125	2.87	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28338		RunNo: 28338							
Prep Date:	Analysis Date: 8/19/2015		SeqNo: 855775		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R28338		RunNo: 28338							
Prep Date:	Analysis Date: 8/19/2015		SeqNo: 855776		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			
Bromide	2.5	0.10	2.500	0	99.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.4	90	110			
Sulfate	9.8	0.50	10.00	0	98.0	90	110			

Sample ID 1508904-002AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R28338		RunNo: 28338							
Prep Date:	Analysis Date: 8/19/2015		SeqNo: 855781		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.84	0.10	0.5000	0.3345	101	75.3	111			
Bromide	2.4	0.10	2.500	0.2074	86.5	84.6	106			
Phosphorus, Orthophosphate (As P	6.7	0.50	5.000	2.040	93.9	76.5	106			

Sample ID 1508904-002AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R28338		RunNo: 28338							
Prep Date:	Analysis Date: 8/19/2015		SeqNo: 855782		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.84	0.10	0.5000	0.3345	101	75.3	111	0.0357	20	
Bromide	2.4	0.10	2.500	0.2074	89.1	84.6	106	2.75	20	
Phosphorus, Orthophosphate (As P	6.8	0.50	5.000	2.040	96.0	76.5	106	1.58	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R28543		RunNo: 28543							
Prep Date:	Analysis Date: 8/28/2015		SeqNo: 863412		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R28543			RunNo: 28543						
Prep Date:	Analysis Date: 8/28/2015			SeqNo: 863412			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28543			RunNo: 28543						
Prep Date:	Analysis Date: 8/28/2015			SeqNo: 863413			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0	104	90	110			

Sample ID 1508D65-001AMSD	SampType: MSD			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R28543			RunNo: 28543						
Prep Date:	Analysis Date: 8/28/2015			SeqNo: 863416			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	40	0.50	10.00	28.54	111	84.2	113	2.27	20	

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R28611			RunNo: 28611						
Prep Date:	Analysis Date: 9/1/2015			SeqNo: 865519			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R28611			RunNo: 28611						
Prep Date:	Analysis Date: 9/1/2015			SeqNo: 865520			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.7	90	110			

Sample ID 1508E89-001BMS	SampType: MS			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R28611			RunNo: 28611						
Prep Date:	Analysis Date: 9/1/2015			SeqNo: 865554			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	0.50	5.000	10.58	103	81.2	116			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1508E89-001BMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R28611		RunNo: 28611					
Prep Date:			Analysis Date: 9/1/2015		SeqNo: 865555		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	0.50	5.000	10.58	104	81.2	116	0.147	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R28639			RunNo: 28639					
Prep Date:		Analysis Date: 9/2/2015			SeqNo: 866937		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R28639		RunNo: 28639					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866938		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID	1509111-001AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R28639		RunNo: 28639					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866940		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.9	0.20	3.500	0.4191	98.9	86.2	109			

Sample ID	1509111-001AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R28639		RunNo: 28639					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866941		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.9	0.20	3.500	0.4191	99.8	86.2	109	0.798	20	

Sample ID	1509120-001BMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R28639		RunNo: 28639					
Prep Date:			Analysis Date: 9/2/2015		SeqNo: 866978		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0.1372	93.0	86.2	109			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	1509120-001BMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions						
Client ID:	BatchQC	Batch ID:	R28639	RunNo:	28639						
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	866979	Units:	mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrate+Nitrite as N	3.4	0.20	3.500	0.1372	94.0	86.2	109	1.04	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	MB-20873		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		100	72	136			

Sample ID	LCS-20873		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855913		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.8	52.4	154			
Surr: DNOP	0.47		0.5000		94.3	72	136			

Sample ID	1508885-002CMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	BatchQC		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855924		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	41.3	177			
Surr: DNOP	0.57		0.5000		114	72	136			

Sample ID	1508885-002CMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	BatchQC		Batch ID: 20873		RunNo: 28342					
Prep Date:	8/19/2015		Analysis Date: 8/19/2015		SeqNo: 855962		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	-94.6	317	0.0774	22.1	
Surr: DNOP	0.55		0.5000		111	72	136	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup**Project:** 2015 3rd Quarter/Annual-OW Wells

Sample ID	RB2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A28360	RunNo:	28360					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856554	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	RB2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A28360	RunNo:	28360					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856554	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.5	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	A28360	RunNo:	28360					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856555	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	70	130			
Toluene	22	1.0	20.00	0	109	70	130			
Chlorobenzene	22	1.0	20.00	0	108	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID 100ng lcs2	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: A28360				RunNo: 28360					
Prep Date:	Analysis Date: 8/20/2015				SeqNo: 856555		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	114	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130			
Surr: Dibromofluoromethane	12		10.00		116	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID 1508890-002a ms2	SampType: MS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: MW-4	Batch ID: A28360				RunNo: 28360					
Prep Date:	Analysis Date: 8/21/2015				SeqNo: 856558		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	70	130			
Toluene	20	1.0	20.00	0	98.8	70	130			
Chlorobenzene	20	1.0	20.00	0	99.0	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	9.5		10.00		94.9	70	130			

Sample ID 1508890-002a msd2	SampType: MSD				TestCode: EPA Method 8260B: VOLATILES					
Client ID: MW-4	Batch ID: A28360				RunNo: 28360					
Prep Date:	Analysis Date: 8/21/2015				SeqNo: 856559		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	70	130	5.27	20	
Toluene	20	1.0	20.00	0	102	70	130	3.09	20	
Chlorobenzene	20	1.0	20.00	0	97.8	70	130	1.22	20	
1,1-Dichloroethene	20	1.0	20.00	0	97.7	70	130	6.94	20	
Trichloroethene (TCE)	21	1.0	20.00	0	103	70	130	5.35	20	
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		108	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		95.4	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20889		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858874		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	mb-20889	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	20889	RunNo:	28422					
Prep Date:	8/20/2015	Analysis Date:	8/24/2015	SeqNo:	858874	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		68.3	14.9	111			
Surr: Phenol-d5	140		200.0		70.9	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		70.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		73.8	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.1	21.3	123			
Surr: 4-Terphenyl-d14	51		100.0		51.5	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	Ics-20889		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858875		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.7	47.8	99.7			
4-Chloro-3-methylphenol	140	10	200.0	0	68.0	58.1	103			
2-Chlorophenol	140	10	200.0	0	70.6	49.5	96.8			
1,4-Dichlorobenzene	68	10	100.0	0	67.6	40.4	89.4			
2,4-Dinitrotoluene	52	10	100.0	0	51.6	38.6	91.3			
N-Nitrosodi-n-propylamine	67	10	100.0	0	67.4	53.9	95.6			
4-Nitrophenol	130	10	200.0	0	62.7	26.4	108			
Pentachlorophenol	110	20	200.0	0	55.9	36.5	86.6			
Phenol	140	10	200.0	0	68.3	29.3	108			
Pyrene	71	10	100.0	0	71.1	45.7	100			
1,2,4-Trichlorobenzene	73	10	100.0	0	73.3	39.3	94.5			
Surr: 2-Fluorophenol	140		200.0		68.0	14.9	111			
Surr: Phenol-d5	130		200.0		66.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.3	15.7	154			
Surr: Nitrobenzene-d5	68		100.0		67.5	47.8	106			
Surr: 2-Fluorobiphenyl	68		100.0		67.5	21.3	123			
Surr: 4-Terphenyl-d14	55		100.0		55.4	14.3	135			

Sample ID	Icsd-20889		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858876		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.2	47.8	99.7	10.5	28.2	
4-Chloro-3-methylphenol	160	10	200.0	0	80.6	58.1	103	16.9	24.4	
2-Chlorophenol	170	10	200.0	0	87.0	49.5	96.8	20.9	28.1	
1,4-Dichlorobenzene	78	10	100.0	0	78.2	40.4	89.4	14.5	31.2	
2,4-Dinitrotoluene	50	10	100.0	0	50.1	38.6	91.3	3.07	44.4	
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.6	53.9	95.6	12.8	24.2	
4-Nitrophenol	120	10	200.0	0	61.2	26.4	108	2.37	36.6	
Pentachlorophenol	130	20	200.0	0	67.5	36.5	86.6	18.8	29.5	
Phenol	170	10	200.0	0	84.5	29.3	108	21.2	30	
Pyrene	77	10	100.0	0	76.7	45.7	100	7.53	31	
1,2,4-Trichlorobenzene	90	10	100.0	0	89.8	39.3	94.5	20.3	24	
Surr: 2-Fluorophenol	150		200.0		77.4	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		81.4	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	82		100.0		82.4	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	lcsd-20889		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 20889		RunNo: 28422					
Prep Date:	8/20/2015		Analysis Date: 8/24/2015		SeqNo: 858876		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	62		100.0		61.7	14.3	135	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508890

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 3rd Quarter/Annual-OW Wells

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	C28360	RunNo:	28360					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856605	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		103	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	C28360	RunNo:	28360					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856606	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	97.0	80.6	122			
Surr: BFB	9.7		10.00		97.2	70	130			

Sample ID	1508875-001B MS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	C28360	RunNo:	28360					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856608	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	53.8	128			
Surr: BFB	10		10.00		100	70	130			

Sample ID	1508875-001B MSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	C28360	RunNo:	28360					
Prep Date:		Analysis Date:	8/20/2015	SeqNo:	856609	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	103	53.8	128	2.76	20	
Surr: BFB	10		10.00		104	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1508890

RcptNo: 1

Received by/date: AT 08/19/15

Logged By: Anne Thorne 8/19/2015 10:00:00 AM

Completed By: Anne Thorne 8/19/2015

Reviewed By: [Signature] 08/19/15

[Signature]

[Signature]

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒ CS 08/19/15
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 9, 2
(2 or 12 unless noted)
Adjusted? yes
Checked by: CS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<u>[Signature]</u>	Date:	<u>[Signature]</u>
By Whom:	<u>[Signature]</u>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<u>[Signature]</u>		
Client Instructions:	<u>[Signature]</u>		

17. Additional remarks: For metals analysis, added 0.4ml HNO₃ to -003F for acceptable pH. Held in Log in for 24 hours prior to analysis. CS 08/19/15

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 01, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 Semi-Annual Ponds

OrderNo.: 1509104

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 14 sample(s) on 9/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 Semi-Annual Ponds

Collection Date:

Lab ID: 1509104-001

Matrix: TRIP BLANK

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Toluene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Ethylbenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Naphthalene	ND	2.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1-Methylnaphthalene	ND	4.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
2-Methylnaphthalene	ND	4.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Acetone	ND	10		µg/L	1	9/3/2015 6:56:44 PM	R28653
Bromobenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Bromodichloromethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Bromoform	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Bromomethane	ND	3.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
2-Butanone	ND	10		µg/L	1	9/3/2015 6:56:44 PM	R28653
Carbon disulfide	ND	10		µg/L	1	9/3/2015 6:56:44 PM	R28653
Carbon Tetrachloride	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Chlorobenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Chloroethane	ND	2.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Chloroform	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Chloromethane	ND	3.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
2-Chlorotoluene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
4-Chlorotoluene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
cis-1,2-DCE	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Dibromochloromethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Dibromomethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,1-Dichloroethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,1-Dichloroethene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2-Dichloropropane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,3-Dichloropropane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
2,2-Dichloropropane	ND	2.0		µg/L	1	9/3/2015 6:56:44 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 Semi-Annual Ponds

Collection Date:

Lab ID: 1509104-001

Matrix: TRIP BLANK

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Hexachlorobutadiene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
2-Hexanone	ND	10		µg/L	1	9/3/2015 6:56:44 PM	R28653
Isopropylbenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
4-Isopropyltoluene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
4-Methyl-2-pentanone	ND	10		µg/L	1	9/3/2015 6:56:44 PM	R28653
Methylene Chloride	ND	3.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
n-Butylbenzene	ND	3.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
n-Propylbenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
sec-Butylbenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Styrene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
tert-Butylbenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
trans-1,2-DCE	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Trichlorofluoromethane	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Vinyl chloride	ND	1.0		µg/L	1	9/3/2015 6:56:44 PM	R28653
Xylenes, Total	ND	1.5		µg/L	1	9/3/2015 6:56:44 PM	R28653
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	1	9/3/2015 6:56:44 PM	R28653
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	9/3/2015 6:56:44 PM	R28653
Surr: Dibromofluoromethane	106	70-130		%REC	1	9/3/2015 6:56:44 PM	R28653
Surr: Toluene-d8	96.6	70-130		%REC	1	9/3/2015 6:56:44 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 8:00:00 AM

Lab ID: 1509104-002

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Toluene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Ethylbenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Naphthalene	ND	2.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1-Methylnaphthalene	ND	4.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
2-Methylnaphthalene	ND	4.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Acetone	ND	10		µg/L	1	9/3/2015 7:24:13 PM	R28653
Bromobenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Bromodichloromethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Bromoform	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Bromomethane	ND	3.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
2-Butanone	ND	10		µg/L	1	9/3/2015 7:24:13 PM	R28653
Carbon disulfide	ND	10		µg/L	1	9/3/2015 7:24:13 PM	R28653
Carbon Tetrachloride	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Chlorobenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Chloroethane	ND	2.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Chloroform	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Chloromethane	ND	3.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
2-Chlorotoluene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
4-Chlorotoluene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
cis-1,2-DCE	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Dibromochloromethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Dibromomethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,1-Dichloroethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,1-Dichloroethene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2-Dichloropropane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,3-Dichloropropane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
2,2-Dichloropropane	ND	2.0		µg/L	1	9/3/2015 7:24:13 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 8:00:00 AM

Lab ID: 1509104-002

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Hexachlorobutadiene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
2-Hexanone	ND	10		µg/L	1	9/3/2015 7:24:13 PM	R28653
Isopropylbenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
4-Isopropyltoluene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
4-Methyl-2-pentanone	ND	10		µg/L	1	9/3/2015 7:24:13 PM	R28653
Methylene Chloride	ND	3.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
n-Butylbenzene	ND	3.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
n-Propylbenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
sec-Butylbenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Styrene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
tert-Butylbenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
trans-1,2-DCE	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Trichlorofluoromethane	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Vinyl chloride	ND	1.0		µg/L	1	9/3/2015 7:24:13 PM	R28653
Xylenes, Total	ND	1.5		µg/L	1	9/3/2015 7:24:13 PM	R28653
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	9/3/2015 7:24:13 PM	R28653
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	9/3/2015 7:24:13 PM	R28653
Surr: Dibromofluoromethane	113	70-130		%REC	1	9/3/2015 7:24:13 PM	R28653
Surr: Toluene-d8	98.6	70-130		%REC	1	9/3/2015 7:24:13 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 8:00:00 AM

Lab ID: 1509104-003

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Acenaphthylene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Aniline	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Anthracene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Azobenzene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Benz(a)anthracene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Benzo(a)pyrene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Benzo(b)fluoranthene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Benzo(g,h,i)perylene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Benzo(k)fluoranthene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Benzoic acid	ND	25		µg/L	1	9/10/2015 12:01:36 PM	21154
Benzyl alcohol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Bis(2-chloroethoxy)methane	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Bis(2-chloroethyl)ether	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Bis(2-chloroisopropyl)ether	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Bis(2-ethylhexyl)phthalate	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
4-Bromophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Butyl benzyl phthalate	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Carbazole	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
4-Chloro-3-methylphenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
4-Chloroaniline	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2-Chloronaphthalene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2-Chlorophenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
4-Chlorophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Chrysene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Di-n-butyl phthalate	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Di-n-octyl phthalate	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Dibenz(a,h)anthracene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Dibenzofuran	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
1,2-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
1,3-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
1,4-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
3,3'-Dichlorobenzidine	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Diethyl phthalate	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Dimethyl phthalate	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2,4-Dichlorophenol	ND	25		µg/L	1	9/10/2015 12:01:36 PM	21154
2,4-Dimethylphenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
4,6-Dinitro-2-methylphenol	ND	25		µg/L	1	9/10/2015 12:01:36 PM	21154
2,4-Dinitrophenol	ND	25		µg/L	1	9/10/2015 12:01:36 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 8:00:00 AM

Lab ID: 1509104-003

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2,6-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Fluoranthene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Fluorene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Hexachlorobenzene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Hexachlorobutadiene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Hexachlorocyclopentadiene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Hexachloroethane	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Indeno(1,2,3-cd)pyrene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Isophorone	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
1-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2-Methylphenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
3+4-Methylphenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
N-Nitrosodi-n-propylamine	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
N-Nitrosodimethylamine	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
N-Nitrosodiphenylamine	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Naphthalene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2-Nitroaniline	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
3-Nitroaniline	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
4-Nitroaniline	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Nitrobenzene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2-Nitrophenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
4-Nitrophenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Pentachlorophenol	ND	25		µg/L	1	9/10/2015 12:01:36 PM	21154
Phenanthrene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Phenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Pyrene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Pyridine	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
1,2,4-Trichlorobenzene	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2,4,5-Trichlorophenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
2,4,6-Trichlorophenol	ND	12		µg/L	1	9/10/2015 12:01:36 PM	21154
Surr: 2-Fluorophenol	60.5	14.9-111		%REC	1	9/10/2015 12:01:36 PM	21154
Surr: Phenol-d5	54.9	11.3-108		%REC	1	9/10/2015 12:01:36 PM	21154
Surr: 2,4,6-Tribromophenol	84.3	15.7-154		%REC	1	9/10/2015 12:01:36 PM	21154
Surr: Nitrobenzene-d5	74.6	47.8-106		%REC	1	9/10/2015 12:01:36 PM	21154
Surr: 2-Fluorobiphenyl	73.1	21.3-123		%REC	1	9/10/2015 12:01:36 PM	21154
Surr: 4-Terphenyl-d14	73.4	14.3-135		%REC	1	9/10/2015 12:01:36 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:30:00 PM

Lab ID: 1509104-004

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0098	0.0050		mg/L	5	9/18/2015 2:05:30 PM	B28981
Lead	ND	0.0025		mg/L	5	9/18/2015 2:05:30 PM	B28981
Selenium	0.011	0.0050		mg/L	5	9/18/2015 2:05:30 PM	B28981
Uranium	0.0031	0.0025		mg/L	5	9/18/2015 2:05:30 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	1.0		mg/L	10	9/2/2015 5:48:13 PM	R28639
Chloride	2900	100		mg/L	200	9/14/2015 11:55:40 AM	R28852
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	9/2/2015 5:48:13 PM	R28639
Bromide	1.3	1.0		mg/L	10	9/2/2015 5:48:13 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 5:48:13 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	9/2/2015 5:48:13 PM	R28639
Sulfate	960	50		mg/L	100	9/2/2015 6:00:38 PM	R28639
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	14000	1.0		µmhos/cm	100	9/8/2015 7:07:37 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.87	1.68	H	pH units	1	9/3/2015 12:22:21 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	9/10/2015 1:49:08 PM	B28759
Cadmium	ND	0.0020		mg/L	1	9/10/2015 1:49:08 PM	B28759
Calcium	180	5.0		mg/L	5	9/10/2015 1:51:20 PM	B28759
Chromium	0.012	0.0060		mg/L	1	9/11/2015 2:41:40 PM	A28781
Copper	ND	0.0060		mg/L	1	9/10/2015 1:49:08 PM	B28759
Iron	0.37	0.020	*	mg/L	1	9/10/2015 1:49:08 PM	B28759
Magnesium	58	1.0		mg/L	1	9/10/2015 1:49:08 PM	B28759
Manganese	0.30	0.0020	*	mg/L	1	9/10/2015 1:49:08 PM	B28759
Potassium	86	1.0		mg/L	1	9/10/2015 1:49:08 PM	B28759
Silver	ND	0.0050		mg/L	1	9/10/2015 1:49:08 PM	B28759
Sodium	2000	50		mg/L	50	9/11/2015 4:04:29 PM	A28781
Zinc	0.020	0.010		mg/L	1	9/11/2015 2:41:40 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	9/10/2015 11:04:21 AM	21196
Cadmium	ND	0.0020		mg/L	1	9/10/2015 11:04:21 AM	21196
Chromium	0.013	0.0060		mg/L	1	9/10/2015 11:04:21 AM	21196
Copper	ND	0.0060		mg/L	1	9/10/2015 11:04:21 AM	21196
Iron	0.58	0.020	*	mg/L	1	9/10/2015 11:04:21 AM	21196
Manganese	0.30	0.0020	*	mg/L	1	9/10/2015 11:04:21 AM	21196
Silver	ND	0.0050		mg/L	1	9/10/2015 11:04:21 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:30:00 PM

Lab ID: 1509104-004

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	0.014	0.010		mg/L	1	9/10/2015 11:04:21 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.014	0.0050	*	mg/L	5	9/17/2015 5:23:10 PM	21196
Lead	ND	0.0025		mg/L	5	9/17/2015 5:23:10 PM	21196
Selenium	0.013	0.0050		mg/L	5	9/17/2015 5:23:10 PM	21196
Uranium	0.0048	0.0025		mg/L	5	9/17/2015 5:23:10 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 2:15:02 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Acenaphthylene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Aniline	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Anthracene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Azobenzene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Benzoic acid	ND	20		µg/L	1	9/3/2015 9:01:34 PM	21120
Benzyl alcohol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Carbazole	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
4-Chloroaniline	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2-Chlorophenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Chrysene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Dibenzofuran	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:30:00 PM

Lab ID: 1509104-004

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Diethyl phthalate	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/3/2015 9:01:34 PM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/3/2015 9:01:34 PM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/3/2015 9:01:34 PM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Fluoranthene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Fluorene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Hexachloroethane	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Isophorone	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2-Methylphenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
3+4-Methylphenol	68	10		µg/L	1	9/3/2015 9:01:34 PM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Naphthalene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2-Nitroaniline	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
3-Nitroaniline	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
4-Nitroaniline	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Nitrobenzene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2-Nitrophenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
4-Nitrophenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Pentachlorophenol	ND	20		µg/L	1	9/3/2015 9:01:34 PM	21120
Phenanthrene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Phenol	220	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Pyrene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Pyridine	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:30:00 PM

Lab ID: 1509104-004

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/3/2015 9:01:34 PM	21120
Surr: 2-Fluorophenol	40.6	14.9-111		%REC	1	9/3/2015 9:01:34 PM	21120
Surr: Phenol-d5	44.4	11.3-108		%REC	1	9/3/2015 9:01:34 PM	21120
Surr: 2,4,6-Tribromophenol	48.6	15.7-154		%REC	1	9/3/2015 9:01:34 PM	21120
Surr: Nitrobenzene-d5	57.1	47.8-106		%REC	1	9/3/2015 9:01:34 PM	21120
Surr: 2-Fluorobiphenyl	52.7	21.3-123		%REC	1	9/3/2015 9:01:34 PM	21120
Surr: 4-Terphenyl-d14	33.3	14.3-135		%REC	1	9/3/2015 9:01:34 PM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	10	5.0	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Toluene	22	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:30:00 PM

Lab ID: 1509104-004

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 12:30:54 PM	R28653
Surr: 1,2-Dichloroethane-d4	95.0	70-130	D	%REC	10	9/3/2015 12:30:54 PM	R28653
Surr: 4-Bromofluorobenzene	107	70-130	D	%REC	10	9/3/2015 12:30:54 PM	R28653
Surr: Dibromofluoromethane	110	70-130	D	%REC	10	9/3/2015 12:30:54 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:30:00 PM

Lab ID: 1509104-004

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Toluene-d8	97.2	70-130	D	%REC	10	9/3/2015 12:30:54 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:20:00 PM

Lab ID: 1509104-005

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.0050	*	mg/L	5	9/18/2015 2:08:34 PM	B28981
Lead	ND	0.0025		mg/L	5	9/18/2015 2:08:34 PM	B28981
Selenium	0.014	0.0050		mg/L	5	9/18/2015 2:08:34 PM	B28981
Uranium	ND	0.0025		mg/L	5	9/18/2015 2:08:34 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	23	10	*	mg/L	100	9/2/2015 6:25:27 PM	R28639
Chloride	5300	250		mg/L	500	9/14/2015 12:08:05 PM	R28852
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	9/2/2015 6:13:02 PM	R28639
Bromide	1.9	1.0		mg/L	10	9/2/2015 6:13:02 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 6:13:02 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	9/2/2015 6:13:02 PM	R28639
Sulfate	650	50		mg/L	100	9/2/2015 6:25:27 PM	R28639
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	19000	0.050		µmhos/cm	5	9/8/2015 7:16:42 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.81	1.68	H	pH units	1	9/3/2015 12:30:35 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.19	0.0020		mg/L	1	9/10/2015 1:53:32 PM	B28759
Cadmium	ND	0.0020		mg/L	1	9/10/2015 1:53:32 PM	B28759
Calcium	320	5.0		mg/L	5	9/10/2015 1:55:47 PM	B28759
Chromium	0.014	0.0060		mg/L	1	9/11/2015 2:43:55 PM	A28781
Copper	ND	0.0060		mg/L	1	9/10/2015 1:53:32 PM	B28759
Iron	0.21	0.020		mg/L	1	9/10/2015 1:53:32 PM	B28759
Magnesium	120	5.0		mg/L	5	9/10/2015 1:55:47 PM	B28759
Manganese	0.27	0.0020	*	mg/L	1	9/10/2015 1:53:32 PM	B28759
Potassium	110	5.0		mg/L	5	9/10/2015 1:55:47 PM	B28759
Silver	ND	0.0050		mg/L	1	9/10/2015 1:53:32 PM	B28759
Sodium	3100	50		mg/L	50	9/11/2015 4:06:28 PM	A28781
Zinc	0.014	0.010		mg/L	1	9/11/2015 2:43:55 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.20	0.0020		mg/L	1	9/10/2015 11:08:44 AM	21196
Cadmium	ND	0.0020		mg/L	1	9/10/2015 11:08:44 AM	21196
Chromium	0.017	0.0060		mg/L	1	9/10/2015 11:08:44 AM	21196
Copper	ND	0.0060		mg/L	1	9/10/2015 11:08:44 AM	21196
Iron	0.42	0.020	*	mg/L	1	9/10/2015 11:08:44 AM	21196
Manganese	0.29	0.0020	*	mg/L	1	9/10/2015 11:08:44 AM	21196
Silver	ND	0.0050		mg/L	1	9/10/2015 11:08:44 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:20:00 PM

Lab ID: 1509104-005

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	0.013	0.010		mg/L	1	9/10/2015 11:08:44 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.015	0.0050	*	mg/L	5	9/17/2015 5:32:20 PM	21196
Lead	ND	0.0025		mg/L	5	9/17/2015 5:32:20 PM	21196
Selenium	0.018	0.0050		mg/L	5	9/17/2015 5:32:20 PM	21196
Uranium	0.0027	0.0025		mg/L	5	9/17/2015 5:32:20 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:21:03 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Acenaphthylene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Aniline	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Anthracene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Azobenzene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Benzoic acid	ND	20		µg/L	1	9/3/2015 9:31:48 PM	21120
Benzyl alcohol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Carbazole	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
4-Chloroaniline	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2-Chlorophenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Chrysene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Dibenzofuran	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:20:00 PM

Lab ID: 1509104-005

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Diethyl phthalate	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/3/2015 9:31:48 PM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/3/2015 9:31:48 PM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/3/2015 9:31:48 PM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Fluoranthene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Fluorene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Hexachloroethane	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Isophorone	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2-Methylphenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
3+4-Methylphenol	36	10		µg/L	1	9/3/2015 9:31:48 PM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Naphthalene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2-Nitroaniline	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
3-Nitroaniline	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
4-Nitroaniline	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Nitrobenzene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2-Nitrophenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
4-Nitrophenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Pentachlorophenol	ND	20		µg/L	1	9/3/2015 9:31:48 PM	21120
Phenanthrene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Phenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Pyrene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Pyridine	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:20:00 PM

Lab ID: 1509104-005

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/3/2015 9:31:48 PM	21120
Surr: 2-Fluorophenol	29.2	14.9-111		%REC	1	9/3/2015 9:31:48 PM	21120
Surr: Phenol-d5	36.9	11.3-108		%REC	1	9/3/2015 9:31:48 PM	21120
Surr: 2,4,6-Tribromophenol	46.3	15.7-154		%REC	1	9/3/2015 9:31:48 PM	21120
Surr: Nitrobenzene-d5	42.4	47.8-106	S	%REC	1	9/3/2015 9:31:48 PM	21120
Surr: 2-Fluorobiphenyl	40.2	21.3-123		%REC	1	9/3/2015 9:31:48 PM	21120
Surr: 4-Terphenyl-d14	23.3	14.3-135		%REC	1	9/3/2015 9:31:48 PM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	11	5.0	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Toluene	19	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:20:00 PM

Lab ID: 1509104-005

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 1:53:41 PM	R28653
Surr: 1,2-Dichloroethane-d4	92.9	70-130	D	%REC	10	9/3/2015 1:53:41 PM	R28653
Surr: 4-Bromofluorobenzene	101	70-130	D	%REC	10	9/3/2015 1:53:41 PM	R28653
Surr: Dibromofluoromethane	109	70-130	D	%REC	10	9/3/2015 1:53:41 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:20:00 PM

Lab ID: 1509104-005

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Toluene-d8	95.7	70-130	D	%REC	10	9/3/2015 1:53:41 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:40:00 PM

Lab ID: 1509104-006

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.014	0.0050	*	mg/L	5	9/18/2015 2:11:37 PM	B28981
Lead	ND	0.0025		mg/L	5	9/18/2015 2:11:37 PM	B28981
Selenium	0.018	0.0050		mg/L	5	9/18/2015 2:11:37 PM	B28981
Uranium	0.0026	0.0025		mg/L	5	9/18/2015 2:11:37 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	24	10	*	mg/L	100	9/2/2015 6:50:16 PM	R28639
Chloride	5300	250		mg/L	500	9/14/2015 12:20:29 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 6:50:16 PM	R28639
Bromide	1.8	1.0		mg/L	10	9/2/2015 6:37:51 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 6:37:51 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	9/2/2015 6:37:51 PM	R28639
Sulfate	690	50		mg/L	100	9/2/2015 6:50:16 PM	R28639
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	19000	0.050		µmhos/cm	5	9/8/2015 7:21:08 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.83	1.68	H	pH units	1	9/3/2015 12:34:34 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.19	0.0020		mg/L	1	9/10/2015 1:57:46 PM	B28759
Cadmium	ND	0.0020		mg/L	1	9/10/2015 1:57:46 PM	B28759
Calcium	320	5.0		mg/L	5	9/10/2015 1:59:59 PM	B28759
Chromium	0.013	0.0060		mg/L	1	9/11/2015 2:46:10 PM	A28781
Copper	ND	0.0060		mg/L	1	9/10/2015 1:57:46 PM	B28759
Iron	0.24	0.020		mg/L	1	9/10/2015 1:57:46 PM	B28759
Magnesium	120	5.0		mg/L	5	9/10/2015 1:59:59 PM	B28759
Manganese	0.28	0.0020	*	mg/L	1	9/10/2015 1:57:46 PM	B28759
Potassium	100	5.0		mg/L	5	9/10/2015 1:59:59 PM	B28759
Silver	ND	0.0050		mg/L	1	9/10/2015 1:57:46 PM	B28759
Sodium	3100	50		mg/L	50	9/11/2015 4:08:26 PM	A28781
Zinc	0.016	0.010		mg/L	1	9/11/2015 2:46:10 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.20	0.0020		mg/L	1	9/10/2015 11:22:57 AM	21196
Cadmium	ND	0.0020		mg/L	1	9/10/2015 11:22:57 AM	21196
Chromium	0.017	0.0060		mg/L	1	9/10/2015 11:22:57 AM	21196
Copper	ND	0.0060		mg/L	1	9/10/2015 11:22:57 AM	21196
Iron	0.43	0.020	*	mg/L	1	9/10/2015 11:22:57 AM	21196
Manganese	0.29	0.0020	*	mg/L	1	9/10/2015 11:22:57 AM	21196
Silver	ND	0.0050		mg/L	1	9/10/2015 11:22:57 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:40:00 PM

Lab ID: 1509104-006

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	0.018	0.010		mg/L	1	9/10/2015 11:22:57 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.016	0.0050	*	mg/L	5	9/17/2015 5:41:23 PM	21196
Lead	ND	0.0025		mg/L	5	9/17/2015 5:41:23 PM	21196
Selenium	0.018	0.0050		mg/L	5	9/17/2015 5:41:23 PM	21196
Uranium	0.0028	0.0025		mg/L	5	9/17/2015 5:41:23 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:23:06 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Acenaphthylene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Aniline	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Anthracene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Azobenzene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Benzoic acid	ND	20		µg/L	1	9/3/2015 10:02:09 PM	21120
Benzyl alcohol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Carbazole	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
4-Chloroaniline	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2-Chlorophenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Chrysene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Dibenzofuran	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:40:00 PM

Lab ID: 1509104-006

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
1,2-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Diethyl phthalate	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/3/2015 10:02:09 PM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/3/2015 10:02:09 PM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/3/2015 10:02:09 PM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Fluoranthene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Fluorene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Hexachloroethane	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Isophorone	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2-Methylphenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
3+4-Methylphenol	45	10		µg/L	1	9/3/2015 10:02:09 PM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Naphthalene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2-Nitroaniline	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
3-Nitroaniline	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
4-Nitroaniline	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Nitrobenzene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2-Nitrophenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
4-Nitrophenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Pentachlorophenol	ND	20		µg/L	1	9/3/2015 10:02:09 PM	21120
Phenanthrene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Phenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Pyrene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Pyridine	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:40:00 PM

Lab ID: 1509104-006

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/3/2015 10:02:09 PM	21120
Surr: 2-Fluorophenol	44.6	14.9-111		%REC	1	9/3/2015 10:02:09 PM	21120
Surr: Phenol-d5	48.7	11.3-108		%REC	1	9/3/2015 10:02:09 PM	21120
Surr: 2,4,6-Tribromophenol	54.4	15.7-154		%REC	1	9/3/2015 10:02:09 PM	21120
Surr: Nitrobenzene-d5	69.0	47.8-106		%REC	1	9/3/2015 10:02:09 PM	21120
Surr: 2-Fluorobiphenyl	63.2	21.3-123		%REC	1	9/3/2015 10:02:09 PM	21120
Surr: 4-Terphenyl-d14	33.4	14.3-135		%REC	1	9/3/2015 10:02:09 PM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	11	5.0	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Toluene	21	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:40:00 PM

Lab ID: 1509104-006

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 2:21:15 PM	R28653
Surr: 1,2-Dichloroethane-d4	96.9	70-130	D	%REC	10	9/3/2015 2:21:15 PM	R28653
Surr: 4-Bromofluorobenzene	110	70-130	D	%REC	10	9/3/2015 2:21:15 PM	R28653
Surr: Dibromofluoromethane	114	70-130	D	%REC	10	9/3/2015 2:21:15 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:40:00 PM

Lab ID: 1509104-006

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: Toluene-d8	97.7	70-130	D	%REC	10	9/3/2015 2:21:15 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:00:00 PM

Lab ID: 1509104-007

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.025	0.010	*	mg/L	10	9/18/2015 2:47:40 PM	B28981
Lead	ND	0.0050		mg/L	10	9/18/2015 2:47:40 PM	B28981
Selenium	0.031	0.010		mg/L	10	9/18/2015 2:47:40 PM	B28981
Uranium	ND	0.0050		mg/L	10	9/18/2015 2:47:40 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	20	10	*	mg/L	100	9/2/2015 7:15:05 PM	R28639
Chloride	8500	500		mg/L	1E	9/14/2015 12:32:54 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 7:15:05 PM	R28639
Bromide	3.7	1.0		mg/L	10	9/2/2015 7:02:41 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 7:02:41 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	9/2/2015 7:02:41 PM	R28639
Sulfate	1600	50		mg/L	100	9/2/2015 7:15:05 PM	R28639
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	32000	0.10		µmhos/cm	10	9/8/2015 7:25:26 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.97	1.68	H	pH units	1	9/3/2015 12:38:35 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.14	0.0020		mg/L	1	9/10/2015 2:09:06 PM	B28759
Cadmium	ND	0.0020		mg/L	1	9/10/2015 2:09:06 PM	B28759
Calcium	380	5.0		mg/L	5	9/10/2015 2:11:15 PM	B28759
Chromium	0.017	0.0060		mg/L	1	9/11/2015 2:48:22 PM	A28781
Copper	ND	0.0060		mg/L	1	9/10/2015 2:09:06 PM	B28759
Iron	0.058	0.020		mg/L	1	9/10/2015 2:09:06 PM	B28759
Magnesium	190	5.0		mg/L	5	9/10/2015 2:11:15 PM	B28759
Manganese	0.32	0.0020	*	mg/L	1	9/10/2015 2:09:06 PM	B28759
Potassium	210	5.0		mg/L	5	9/10/2015 2:11:15 PM	B28759
Silver	ND	0.0050		mg/L	1	9/10/2015 2:09:06 PM	B28759
Sodium	5100	100		mg/L	100	9/11/2015 4:10:25 PM	A28781
Zinc	0.014	0.010		mg/L	1	9/11/2015 2:48:22 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.16	0.0020		mg/L	1	9/10/2015 11:27:13 AM	21196
Cadmium	ND	0.0020		mg/L	1	9/10/2015 11:27:13 AM	21196
Chromium	0.016	0.0060		mg/L	1	9/10/2015 11:27:13 AM	21196
Copper	ND	0.0060		mg/L	1	9/10/2015 11:27:13 AM	21196
Iron	0.16	0.020		mg/L	1	9/10/2015 11:27:13 AM	21196
Manganese	0.32	0.0020	*	mg/L	1	9/10/2015 11:27:13 AM	21196
Silver	ND	0.0050		mg/L	1	9/10/2015 11:27:13 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:00:00 PM

Lab ID: 1509104-007

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	0.012	0.010		mg/L	1	9/10/2015 11:27:13 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.026	0.0050	*	mg/L	5	9/17/2015 5:56:30 PM	21196
Lead	ND	0.0050		mg/L	10	9/17/2015 5:47:24 PM	21196
Selenium	0.034	0.0050		mg/L	5	9/17/2015 5:56:30 PM	21196
Uranium	ND	0.0050		mg/L	10	9/17/2015 5:47:24 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:25:09 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Acenaphthylene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Aniline	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Anthracene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Azobenzene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Benz(a)anthracene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Benzo(a)pyrene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Benzo(b)fluoranthene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Benzo(g,h,i)perylene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Benzo(k)fluoranthene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Benzoic acid	ND	24		µg/L	1	9/10/2015 12:31:30 PM	21154
Benzyl alcohol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Bis(2-chloroethoxy)methane	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Bis(2-chloroethyl)ether	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Bis(2-chloroisopropyl)ether	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Bis(2-ethylhexyl)phthalate	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
4-Bromophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Butyl benzyl phthalate	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Carbazole	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
4-Chloro-3-methylphenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
4-Chloroaniline	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2-Chloronaphthalene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2-Chlorophenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
4-Chlorophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Chrysene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Di-n-butyl phthalate	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Di-n-octyl phthalate	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Dibenz(a,h)anthracene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Dibenzofuran	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:00:00 PM

Lab ID: 1509104-007

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
1,2-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
1,3-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
1,4-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
3,3'-Dichlorobenzidine	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Diethyl phthalate	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Dimethyl phthalate	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2,4-Dichlorophenol	ND	24		µg/L	1	9/10/2015 12:31:30 PM	21154
2,4-Dimethylphenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
4,6-Dinitro-2-methylphenol	ND	24		µg/L	1	9/10/2015 12:31:30 PM	21154
2,4-Dinitrophenol	ND	24		µg/L	1	9/10/2015 12:31:30 PM	21154
2,4-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2,6-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Fluoranthene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Fluorene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Hexachlorobenzene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Hexachlorobutadiene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Hexachlorocyclopentadiene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Hexachloroethane	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Indeno(1,2,3-cd)pyrene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Isophorone	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
1-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2-Methylphenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
3+4-Methylphenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
N-Nitrosodi-n-propylamine	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
N-Nitrosodimethylamine	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
N-Nitrosodiphenylamine	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Naphthalene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2-Nitroaniline	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
3-Nitroaniline	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
4-Nitroaniline	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Nitrobenzene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2-Nitrophenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
4-Nitrophenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Pentachlorophenol	ND	24		µg/L	1	9/10/2015 12:31:30 PM	21154
Phenanthrene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Phenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Pyrene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Pyridine	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:00:00 PM

Lab ID: 1509104-007

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2,4,5-Trichlorophenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
2,4,6-Trichlorophenol	ND	12		µg/L	1	9/10/2015 12:31:30 PM	21154
Surr: 2-Fluorophenol	41.7	14.9-111		%REC	1	9/10/2015 12:31:30 PM	21154
Surr: Phenol-d5	36.5	11.3-108		%REC	1	9/10/2015 12:31:30 PM	21154
Surr: 2,4,6-Tribromophenol	58.2	15.7-154		%REC	1	9/10/2015 12:31:30 PM	21154
Surr: Nitrobenzene-d5	55.6	47.8-106		%REC	1	9/10/2015 12:31:30 PM	21154
Surr: 2-Fluorobiphenyl	54.3	21.3-123		%REC	1	9/10/2015 12:31:30 PM	21154
Surr: 4-Terphenyl-d14	41.8	14.3-135		%REC	1	9/10/2015 12:31:30 PM	21154
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Toluene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:00:00 PM

Lab ID: 1509104-007

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 2:48:51 PM	R28653
Surr: 1,2-Dichloroethane-d4	98.8	70-130	D	%REC	10	9/3/2015 2:48:51 PM	R28653
Surr: 4-Bromofluorobenzene	105	70-130	D	%REC	10	9/3/2015 2:48:51 PM	R28653
Surr: Dibromofluoromethane	119	70-130	D	%REC	10	9/3/2015 2:48:51 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:00:00 PM

Lab ID: 1509104-007

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Toluene-d8	102	70-130	D	%REC	10	9/3/2015 2:48:51 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:15:00 PM

Lab ID: 1509104-008

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.030	0.010	*	mg/L	10	9/18/2015 2:17:44 PM	B28981
Lead	ND	0.0050		mg/L	10	9/18/2015 2:17:44 PM	B28981
Selenium	0.035	0.010		mg/L	10	9/18/2015 2:17:44 PM	B28981
Uranium	ND	0.0050		mg/L	10	9/18/2015 2:17:44 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	21	10	*	mg/L	100	9/2/2015 8:04:44 PM	R28639
Chloride	11000	500		mg/L	1E	9/14/2015 12:57:42 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 8:04:44 PM	R28639
Bromide	4.6	1.0		mg/L	10	9/2/2015 7:52:19 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 7:52:19 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	9/14/2015 12:45:18 PM	R28852
Sulfate	2000	50		mg/L	100	9/2/2015 8:04:44 PM	R28639
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	39000	0.10		µmhos/cm	10	9/8/2015 7:29:30 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.95	1.68	H	pH units	1	9/3/2015 12:42:37 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	9/10/2015 2:13:20 PM	B28759
Cadmium	ND	0.0020		mg/L	1	9/10/2015 2:13:20 PM	B28759
Calcium	450	5.0		mg/L	5	9/10/2015 2:15:26 PM	B28759
Chromium	0.014	0.0060		mg/L	1	9/11/2015 2:50:25 PM	A28781
Copper	ND	0.0060		mg/L	1	9/10/2015 2:13:20 PM	B28759
Iron	0.028	0.020		mg/L	1	9/10/2015 2:13:20 PM	B28759
Magnesium	230	5.0		mg/L	5	9/10/2015 2:15:26 PM	B28759
Manganese	0.33	0.0020	*	mg/L	1	9/10/2015 2:13:20 PM	B28759
Potassium	260	5.0		mg/L	5	9/10/2015 2:15:26 PM	B28759
Silver	ND	0.0050		mg/L	1	9/10/2015 2:13:20 PM	B28759
Sodium	5700	100		mg/L	100	9/11/2015 4:12:26 PM	A28781
Zinc	0.014	0.010		mg/L	1	9/11/2015 2:50:25 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.14	0.0020		mg/L	1	9/10/2015 11:31:33 AM	21196
Cadmium	ND	0.0020		mg/L	1	9/10/2015 11:31:33 AM	21196
Chromium	0.019	0.0060		mg/L	1	9/10/2015 11:31:33 AM	21196
Copper	ND	0.0060		mg/L	1	9/10/2015 11:31:33 AM	21196
Iron	0.085	0.020		mg/L	1	9/10/2015 11:31:33 AM	21196
Manganese	0.35	0.0020	*	mg/L	1	9/10/2015 11:31:33 AM	21196
Silver	ND	0.0050		mg/L	1	9/10/2015 11:31:33 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:15:00 PM

Lab ID: 1509104-008

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	0.012	0.010		mg/L	1	9/10/2015 11:31:33 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.031	0.0050	*	mg/L	5	9/17/2015 6:05:35 PM	21196
Lead	ND	0.0050		mg/L	10	9/17/2015 6:02:33 PM	21196
Selenium	0.040	0.0050		mg/L	5	9/17/2015 6:05:35 PM	21196
Uranium	ND	0.0050		mg/L	10	9/17/2015 6:02:33 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:27:12 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Acenaphthylene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Aniline	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Anthracene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Azobenzene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Benz(a)anthracene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Benzo(a)pyrene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Benzo(b)fluoranthene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Benzo(g,h,i)perylene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Benzo(k)fluoranthene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Benzoic acid	ND	24		µg/L	1	9/10/2015 1:01:27 PM	21154
Benzyl alcohol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Bis(2-chloroethoxy)methane	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Bis(2-chloroethyl)ether	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Bis(2-chloroisopropyl)ether	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Bis(2-ethylhexyl)phthalate	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
4-Bromophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Butyl benzyl phthalate	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Carbazole	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
4-Chloro-3-methylphenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
4-Chloroaniline	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2-Chloronaphthalene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2-Chlorophenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
4-Chlorophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Chrysene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Di-n-butyl phthalate	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Di-n-octyl phthalate	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Dibenz(a,h)anthracene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Dibenzofuran	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:15:00 PM

Lab ID: 1509104-008

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
1,3-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
1,4-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
3,3'-Dichlorobenzidine	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Diethyl phthalate	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Dimethyl phthalate	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2,4-Dichlorophenol	ND	24		µg/L	1	9/10/2015 1:01:27 PM	21154
2,4-Dimethylphenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
4,6-Dinitro-2-methylphenol	ND	24		µg/L	1	9/10/2015 1:01:27 PM	21154
2,4-Dinitrophenol	ND	24		µg/L	1	9/10/2015 1:01:27 PM	21154
2,4-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2,6-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Fluoranthene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Fluorene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Hexachlorobenzene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Hexachlorobutadiene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Hexachlorocyclopentadiene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Hexachloroethane	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Indeno(1,2,3-cd)pyrene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Isophorone	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
1-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2-Methylphenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
3+4-Methylphenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
N-Nitrosodi-n-propylamine	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
N-Nitrosodimethylamine	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
N-Nitrosodiphenylamine	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Naphthalene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2-Nitroaniline	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
3-Nitroaniline	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
4-Nitroaniline	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Nitrobenzene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2-Nitrophenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
4-Nitrophenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Pentachlorophenol	ND	24		µg/L	1	9/10/2015 1:01:27 PM	21154
Phenanthrene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Phenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Pyrene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Pyridine	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:15:00 PM

Lab ID: 1509104-008

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2,4,5-Trichlorophenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
2,4,6-Trichlorophenol	ND	12		µg/L	1	9/10/2015 1:01:27 PM	21154
Surr: 2-Fluorophenol	45.7	14.9-111		%REC	1	9/10/2015 1:01:27 PM	21154
Surr: Phenol-d5	39.1	11.3-108		%REC	1	9/10/2015 1:01:27 PM	21154
Surr: 2,4,6-Tribromophenol	55.4	15.7-154		%REC	1	9/10/2015 1:01:27 PM	21154
Surr: Nitrobenzene-d5	61.6	47.8-106		%REC	1	9/10/2015 1:01:27 PM	21154
Surr: 2-Fluorobiphenyl	62.4	21.3-123		%REC	1	9/10/2015 1:01:27 PM	21154
Surr: 4-Terphenyl-d14	46.2	14.3-135		%REC	1	9/10/2015 1:01:27 PM	21154
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Toluene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:15:00 PM

Lab ID: 1509104-008

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 3:16:28 PM	R28653
Surr: 1,2-Dichloroethane-d4	94.8	70-130	D	%REC	10	9/3/2015 3:16:28 PM	R28653
Surr: 4-Bromofluorobenzene	101	70-130	D	%REC	10	9/3/2015 3:16:28 PM	R28653
Surr: Dibromofluoromethane	115	70-130	D	%REC	10	9/3/2015 3:16:28 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 2:15:00 PM

Lab ID: 1509104-008

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: Toluene-d8	96.5	70-130	D	%REC	10	9/3/2015 3:16:28 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:10:00 PM

Lab ID: 1509104-009

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.15	0.10	*	mg/L	100	9/18/2015 2:20:47 PM	B28981
Lead	ND	0.050		mg/L	100	9/18/2015 2:20:47 PM	B28981
Selenium	0.18	0.10	*	mg/L	100	9/18/2015 2:20:47 PM	B28981
Uranium	ND	0.050		mg/L	100	9/18/2015 2:20:47 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	27	10	*	mg/L	100	9/2/2015 8:29:34 PM	R28639
Chloride	59000	2500		mg/L	5E	9/14/2015 1:22:32 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 8:29:34 PM	R28639
Bromide	26	10		mg/L	100	9/2/2015 8:29:34 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 8:17:09 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	9/14/2015 1:10:07 PM	R28852
Sulfate	12000	2500		mg/L	5E	9/14/2015 1:22:32 PM	R28852
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	180000	1.0		µmhos/cm	100	9/8/2015 7:33:44 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.82	1.68	H	pH units	1	9/3/2015 12:46:36 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.17	0.010		mg/L	5	9/10/2015 2:19:50 PM	B28759
Cadmium	ND	0.010		mg/L	5	9/10/2015 2:19:50 PM	B28759
Calcium	1100	50		mg/L	50	9/11/2015 4:14:26 PM	A28781
Chromium	0.062	0.030		mg/L	5	9/11/2015 2:52:29 PM	A28781
Copper	ND	0.030		mg/L	5	9/10/2015 2:19:50 PM	B28759
Iron	ND	0.10		mg/L	5	9/10/2015 2:19:50 PM	B28759
Magnesium	1100	50		mg/L	50	9/11/2015 4:14:26 PM	A28781
Manganese	0.38	0.010	*	mg/L	5	9/10/2015 2:19:50 PM	B28759
Potassium	1500	50		mg/L	50	9/11/2015 4:14:26 PM	A28781
Silver	ND	0.025		mg/L	5	9/10/2015 2:19:50 PM	B28759
Sodium	30000	500		mg/L	500	9/11/2015 4:16:39 PM	A28781
Zinc	ND	0.050		mg/L	5	9/11/2015 2:52:29 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.18	0.010		mg/L	5	9/10/2015 11:37:51 AM	21196
Cadmium	ND	0.010		mg/L	5	9/10/2015 11:37:51 AM	21196
Chromium	0.064	0.030		mg/L	5	9/10/2015 11:37:51 AM	21196
Copper	ND	0.030		mg/L	5	9/10/2015 11:37:51 AM	21196
Iron	0.12	0.10		mg/L	5	9/10/2015 11:37:51 AM	21196
Manganese	0.51	0.010	*	mg/L	5	9/10/2015 11:37:51 AM	21196
Silver	ND	0.025		mg/L	5	9/10/2015 11:37:51 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:10:00 PM

Lab ID: 1509104-009

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	ND	0.050		mg/L	5	9/10/2015 11:37:51 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.16	0.10	*	mg/L	100	9/17/2015 6:11:38 PM	21196
Lead	ND	0.050		mg/L	100	9/17/2015 6:11:38 PM	21196
Selenium	0.22	0.10	*	mg/L	100	9/17/2015 6:11:38 PM	21196
Uranium	ND	0.050		mg/L	100	9/17/2015 6:11:38 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:29:15 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Acenaphthylene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Aniline	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Anthracene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Azobenzene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Benz(a)anthracene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Benzo(a)pyrene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Benzo(b)fluoranthene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Benzo(g,h,i)perylene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Benzo(k)fluoranthene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Benzoic acid	ND	24		µg/L	1	9/10/2015 1:31:27 PM	21154
Benzyl alcohol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Bis(2-chloroethoxy)methane	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Bis(2-chloroethyl)ether	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Bis(2-chloroisopropyl)ether	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Bis(2-ethylhexyl)phthalate	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
4-Bromophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Butyl benzyl phthalate	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Carbazole	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
4-Chloro-3-methylphenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
4-Chloroaniline	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2-Chloronaphthalene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2-Chlorophenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
4-Chlorophenyl phenyl ether	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Chrysene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Di-n-butyl phthalate	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Di-n-octyl phthalate	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Dibenz(a,h)anthracene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Dibenzofuran	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:10:00 PM

Lab ID: 1509104-009

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
1,3-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
1,4-Dichlorobenzene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
3,3'-Dichlorobenzidine	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Diethyl phthalate	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Dimethyl phthalate	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2,4-Dichlorophenol	ND	24		µg/L	1	9/10/2015 1:31:27 PM	21154
2,4-Dimethylphenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
4,6-Dinitro-2-methylphenol	ND	24		µg/L	1	9/10/2015 1:31:27 PM	21154
2,4-Dinitrophenol	ND	24		µg/L	1	9/10/2015 1:31:27 PM	21154
2,4-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2,6-Dinitrotoluene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Fluoranthene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Fluorene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Hexachlorobenzene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Hexachlorobutadiene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Hexachlorocyclopentadiene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Hexachloroethane	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Indeno(1,2,3-cd)pyrene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Isophorone	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
1-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2-Methylnaphthalene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2-Methylphenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
3+4-Methylphenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
N-Nitrosodi-n-propylamine	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
N-Nitrosodimethylamine	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
N-Nitrosodiphenylamine	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Naphthalene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2-Nitroaniline	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
3-Nitroaniline	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
4-Nitroaniline	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Nitrobenzene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2-Nitrophenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
4-Nitrophenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Pentachlorophenol	ND	24		µg/L	1	9/10/2015 1:31:27 PM	21154
Phenanthrene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Phenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Pyrene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Pyridine	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:10:00 PM

Lab ID: 1509104-009

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2,4,5-Trichlorophenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
2,4,6-Trichlorophenol	ND	12		µg/L	1	9/10/2015 1:31:27 PM	21154
Surr: 2-Fluorophenol	31.7	14.9-111		%REC	1	9/10/2015 1:31:27 PM	21154
Surr: Phenol-d5	29.2	11.3-108		%REC	1	9/10/2015 1:31:27 PM	21154
Surr: 2,4,6-Tribromophenol	31.4	15.7-154		%REC	1	9/10/2015 1:31:27 PM	21154
Surr: Nitrobenzene-d5	31.8	47.8-106	S	%REC	1	9/10/2015 1:31:27 PM	21154
Surr: 2-Fluorobiphenyl	32.5	21.3-123		%REC	1	9/10/2015 1:31:27 PM	21154
Surr: 4-Terphenyl-d14	21.5	14.3-135		%REC	1	9/10/2015 1:31:27 PM	21154
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Toluene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:10:00 PM

Lab ID: 1509104-009

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 3:44:05 PM	R28653
Surr: 1,2-Dichloroethane-d4	99.2	70-130	D	%REC	10	9/3/2015 3:44:05 PM	R28653
Surr: 4-Bromofluorobenzene	109	70-130	D	%REC	10	9/3/2015 3:44:05 PM	R28653
Surr: Dibromofluoromethane	115	70-130	D	%REC	10	9/3/2015 3:44:05 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:10:00 PM

Lab ID: 1509104-009

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Toluene-d8	97.4	70-130	D	%REC	10	9/3/2015 3:44:05 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:20:00 PM

Lab ID: 1509104-010

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.15	0.10	*	mg/L	100	9/18/2015 2:23:51 PM	B28981
Lead	ND	0.050		mg/L	100	9/18/2015 2:23:51 PM	B28981
Selenium	0.18	0.10	*	mg/L	100	9/18/2015 2:23:51 PM	B28981
Uranium	ND	0.050		mg/L	100	9/18/2015 2:23:51 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	27	10	*	mg/L	100	9/2/2015 8:54:23 PM	R28639
Chloride	64000	2500		mg/L	5E	9/14/2015 2:12:10 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 8:54:23 PM	R28639
Bromide	24	10		mg/L	100	9/2/2015 8:54:23 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 8:41:58 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	9/14/2015 1:59:46 PM	R28852
Sulfate	13000	2500		mg/L	5E	9/14/2015 2:12:10 PM	R28852
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	180000	1.0		µmhos/cm	100	9/8/2015 7:37:52 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.80	1.68	H	pH units	1	9/3/2015 12:50:34 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.17	0.010		mg/L	5	9/11/2015 2:54:46 PM	A28781
Cadmium	ND	0.010		mg/L	5	9/11/2015 2:54:46 PM	A28781
Calcium	1000	50		mg/L	50	9/11/2015 4:18:32 PM	A28781
Chromium	0.035	0.030		mg/L	5	9/11/2015 2:54:46 PM	A28781
Copper	ND	0.030		mg/L	5	9/11/2015 2:54:46 PM	A28781
Iron	ND	0.10		mg/L	5	9/10/2015 2:24:15 PM	B28759
Magnesium	1100	50		mg/L	50	9/11/2015 4:18:32 PM	A28781
Manganese	0.38	0.010	*	mg/L	5	9/11/2015 2:54:46 PM	A28781
Potassium	1500	50		mg/L	50	9/11/2015 4:18:32 PM	A28781
Silver	ND	0.025		mg/L	5	9/11/2015 2:54:46 PM	A28781
Sodium	30000	500		mg/L	500	9/11/2015 4:20:44 PM	A28781
Zinc	0.051	0.050		mg/L	5	9/11/2015 2:54:46 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.18	0.010		mg/L	5	9/10/2015 11:42:15 AM	21196
Cadmium	ND	0.010		mg/L	5	9/10/2015 11:42:15 AM	21196
Chromium	0.046	0.030		mg/L	5	9/10/2015 11:42:15 AM	21196
Copper	ND	0.030		mg/L	5	9/10/2015 11:42:15 AM	21196
Iron	ND	0.10		mg/L	5	9/10/2015 11:42:15 AM	21196
Manganese	0.52	0.010	*	mg/L	5	9/10/2015 11:42:15 AM	21196
Silver	ND	0.025		mg/L	5	9/10/2015 11:42:15 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:20:00 PM

Lab ID: 1509104-010

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	ND	0.050		mg/L	5	9/10/2015 11:42:15 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.18	0.10	*	mg/L	100	9/17/2015 6:20:41 PM	21196
Lead	ND	0.050		mg/L	100	9/17/2015 6:20:41 PM	21196
Selenium	0.22	0.10	*	mg/L	100	9/17/2015 6:20:41 PM	21196
Uranium	ND	0.050		mg/L	100	9/17/2015 6:20:41 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:31:19 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Acenaphthylene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Aniline	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Anthracene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Azobenzene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Benzoic acid	ND	20		µg/L	1	9/4/2015 12:02:50 AM	21120
Benzyl alcohol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Carbazole	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
4-Chloroaniline	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2-Chlorophenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Chrysene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Dibenzofuran	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:20:00 PM

Lab ID: 1509104-010

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Diethyl phthalate	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/4/2015 12:02:50 AM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/4/2015 12:02:50 AM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/4/2015 12:02:50 AM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Fluoranthene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Fluorene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Hexachloroethane	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Isophorone	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2-Methylphenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
3+4-Methylphenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Naphthalene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2-Nitroaniline	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
3-Nitroaniline	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
4-Nitroaniline	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Nitrobenzene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2-Nitrophenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
4-Nitrophenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Pentachlorophenol	ND	20		µg/L	1	9/4/2015 12:02:50 AM	21120
Phenanthrene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Phenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Pyrene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Pyridine	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:20:00 PM

Lab ID: 1509104-010

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/4/2015 12:02:50 AM	21120
Surr: 2-Fluorophenol	31.7	14.9-111		%REC	1	9/4/2015 12:02:50 AM	21120
Surr: Phenol-d5	45.2	11.3-108		%REC	1	9/4/2015 12:02:50 AM	21120
Surr: 2,4,6-Tribromophenol	38.0	15.7-154		%REC	1	9/4/2015 12:02:50 AM	21120
Surr: Nitrobenzene-d5	40.1	47.8-106	S	%REC	1	9/4/2015 12:02:50 AM	21120
Surr: 2-Fluorobiphenyl	34.7	21.3-123		%REC	1	9/4/2015 12:02:50 AM	21120
Surr: 4-Terphenyl-d14	16.0	14.3-135		%REC	1	9/4/2015 12:02:50 AM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Toluene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:20:00 PM

Lab ID: 1509104-010

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 4:11:39 PM	R28653
Surr: 1,2-Dichloroethane-d4	100	70-130	D	%REC	10	9/3/2015 4:11:39 PM	R28653
Surr: 4-Bromofluorobenzene	103	70-130	D	%REC	10	9/3/2015 4:11:39 PM	R28653
Surr: Dibromofluoromethane	114	70-130	D	%REC	10	9/3/2015 4:11:39 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:20:00 PM

Lab ID: 1509104-010

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: Toluene-d8	95.2	70-130	D	%REC	10	9/3/2015 4:11:39 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 11:40:00 AM

Lab ID: 1509104-011

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.12	0.10	*	mg/L	100	9/18/2015 2:26:54 PM	B28981
Lead	ND	0.050		mg/L	100	9/18/2015 2:26:54 PM	B28981
Selenium	0.15	0.10	*	mg/L	100	9/18/2015 2:26:54 PM	B28981
Uranium	ND	0.050		mg/L	100	9/18/2015 2:26:54 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	20	10	*	mg/L	100	9/2/2015 9:19:12 PM	R28639
Chloride	59000	2500		mg/L	5E	9/14/2015 2:36:59 PM	R28852
Nitrogen, Nitrite (As N)	ND	20	H	mg/L	200	9/14/2015 2:24:35 PM	R28852
Bromide	31	10		mg/L	100	9/2/2015 9:19:12 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 9:06:47 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	9/16/2015 2:14:27 AM	R28880
Sulfate	7200	100		mg/L	200	9/14/2015 2:24:35 PM	R28852
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	180000	1.0		µmhos/cm	100	9/8/2015 7:42:20 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.75	1.68	H	pH units	1	9/3/2015 12:54:33 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.20	0.010		mg/L	5	9/10/2015 2:28:39 PM	B28759
Cadmium	ND	0.010		mg/L	5	9/10/2015 2:28:39 PM	B28759
Calcium	980	50		mg/L	50	9/11/2015 4:28:32 PM	A28781
Chromium	0.064	0.030		mg/L	5	9/11/2015 2:57:01 PM	A28781
Copper	ND	0.030		mg/L	5	9/10/2015 2:28:39 PM	B28759
Iron	ND	0.10		mg/L	5	9/10/2015 2:28:39 PM	B28759
Magnesium	1000	50		mg/L	50	9/11/2015 4:28:32 PM	A28781
Manganese	0.35	0.010	*	mg/L	5	9/10/2015 2:28:39 PM	B28759
Potassium	1200	50		mg/L	50	9/11/2015 4:28:32 PM	A28781
Silver	ND	0.025		mg/L	5	9/10/2015 2:28:39 PM	B28759
Sodium	32000	500		mg/L	500	9/11/2015 4:30:53 PM	A28781
Zinc	ND	0.050		mg/L	5	9/11/2015 2:57:01 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.22	0.010		mg/L	5	9/10/2015 11:52:19 AM	21196
Cadmium	ND	0.010		mg/L	5	9/10/2015 11:52:19 AM	21196
Chromium	0.033	0.030		mg/L	5	9/10/2015 11:52:19 AM	21196
Copper	ND	0.030		mg/L	5	9/10/2015 11:52:19 AM	21196
Iron	ND	0.10		mg/L	5	9/10/2015 11:52:19 AM	21196
Manganese	0.40	0.010	*	mg/L	5	9/10/2015 11:52:19 AM	21196
Silver	ND	0.025		mg/L	5	9/10/2015 11:52:19 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 11:40:00 AM

Lab ID: 1509104-011

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	ND	0.050		mg/L	5	9/10/2015 11:52:19 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.14	0.10	*	mg/L	100	9/17/2015 6:35:48 PM	21196
Lead	ND	0.050		mg/L	100	9/17/2015 6:35:48 PM	21196
Selenium	0.18	0.10	*	mg/L	100	9/17/2015 6:35:48 PM	21196
Uranium	ND	0.050		mg/L	100	9/17/2015 6:35:48 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:33:23 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Acenaphthylene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Aniline	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Anthracene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Azobenzene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Benzoic acid	ND	20		µg/L	1	9/4/2015 12:33:17 AM	21120
Benzyl alcohol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Carbazole	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
4-Chloroaniline	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2-Chlorophenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Chrysene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Dibenzofuran	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 11:40:00 AM

Lab ID: 1509104-011

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Diethyl phthalate	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/4/2015 12:33:17 AM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/4/2015 12:33:17 AM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/4/2015 12:33:17 AM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Fluoranthene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Fluorene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Hexachloroethane	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Isophorone	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2-Methylphenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
3+4-Methylphenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Naphthalene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2-Nitroaniline	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
3-Nitroaniline	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
4-Nitroaniline	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Nitrobenzene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2-Nitrophenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
4-Nitrophenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Pentachlorophenol	ND	20		µg/L	1	9/4/2015 12:33:17 AM	21120
Phenanthrene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Phenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Pyrene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Pyridine	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 11:40:00 AM

Lab ID: 1509104-011

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/4/2015 12:33:17 AM	21120
Surr: 2-Fluorophenol	32.9	14.9-111		%REC	1	9/4/2015 12:33:17 AM	21120
Surr: Phenol-d5	49.0	11.3-108		%REC	1	9/4/2015 12:33:17 AM	21120
Surr: 2,4,6-Tribromophenol	42.8	15.7-154		%REC	1	9/4/2015 12:33:17 AM	21120
Surr: Nitrobenzene-d5	70.8	47.8-106		%REC	1	9/4/2015 12:33:17 AM	21120
Surr: 2-Fluorobiphenyl	72.3	21.3-123		%REC	1	9/4/2015 12:33:17 AM	21120
Surr: 4-Terphenyl-d14	36.5	14.3-135		%REC	1	9/4/2015 12:33:17 AM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Toluene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 11:40:00 AM

Lab ID: 1509104-011

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 4:39:12 PM	R28653
Surr: 1,2-Dichloroethane-d4	97.8	70-130	D	%REC	10	9/3/2015 4:39:12 PM	R28653
Surr: 4-Bromofluorobenzene	109	70-130	D	%REC	10	9/3/2015 4:39:12 PM	R28653
Surr: Dibromofluoromethane	112	70-130	D	%REC	10	9/3/2015 4:39:12 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 11:40:00 AM

Lab ID: 1509104-011

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Toluene-d8	94.3	70-130	D	%REC	10	9/3/2015 4:39:12 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:35:00 PM

Lab ID: 1509104-012

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.15	0.10	*	mg/L	100	9/18/2015 2:29:58 PM	B28981
Lead	ND	0.050		mg/L	100	9/18/2015 2:29:58 PM	B28981
Selenium	0.17	0.10	*	mg/L	100	9/18/2015 2:29:58 PM	B28981
Uranium	ND	0.050		mg/L	100	9/18/2015 2:29:58 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	25	10	*	mg/L	100	9/2/2015 9:44:01 PM	R28639
Chloride	66000	2500		mg/L	5E	9/14/2015 3:01:49 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 9:44:01 PM	R28639
Bromide	26	10		mg/L	100	9/2/2015 9:44:01 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 9:31:37 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	9/14/2015 2:49:24 PM	R28852
Sulfate	13000	2500		mg/L	5E	9/14/2015 3:01:49 PM	R28852
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	170000	1.0		µmhos/cm	100	9/8/2015 7:46:44 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.76	1.68	H	pH units	1	9/3/2015 12:58:41 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.16	0.010		mg/L	5	9/10/2015 2:41:59 PM	B28759
Cadmium	ND	0.010		mg/L	5	9/10/2015 2:41:59 PM	B28759
Calcium	1100	50		mg/L	50	9/11/2015 4:32:49 PM	A28781
Chromium	0.042	0.030		mg/L	5	9/11/2015 2:59:19 PM	A28781
Copper	ND	0.030		mg/L	5	9/10/2015 2:41:59 PM	B28759
Iron	ND	0.10		mg/L	5	9/10/2015 2:41:59 PM	B28759
Magnesium	1100	50		mg/L	50	9/11/2015 4:32:49 PM	A28781
Manganese	0.44	0.010	*	mg/L	5	9/10/2015 2:41:59 PM	B28759
Potassium	1500	50		mg/L	50	9/11/2015 4:32:49 PM	A28781
Silver	ND	0.025		mg/L	5	9/10/2015 2:41:59 PM	B28759
Sodium	30000	500		mg/L	500	9/11/2015 4:35:00 PM	A28781
Zinc	ND	0.050		mg/L	5	9/11/2015 2:59:19 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.17	0.010		mg/L	5	9/10/2015 11:56:46 AM	21196
Cadmium	ND	0.010		mg/L	5	9/10/2015 11:56:46 AM	21196
Chromium	0.036	0.030		mg/L	5	9/10/2015 11:56:46 AM	21196
Copper	ND	0.030		mg/L	5	9/10/2015 11:56:46 AM	21196
Iron	0.18	0.10		mg/L	5	9/10/2015 11:56:46 AM	21196
Manganese	0.48	0.010	*	mg/L	5	9/10/2015 11:56:46 AM	21196
Silver	ND	0.025		mg/L	5	9/10/2015 11:56:46 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:35:00 PM

Lab ID: 1509104-012

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	ND	0.050		mg/L	5	9/10/2015 11:56:46 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.17	0.10	*	mg/L	100	9/17/2015 6:44:51 PM	21196
Lead	ND	0.050		mg/L	100	9/17/2015 6:44:51 PM	21196
Selenium	0.21	0.10	*	mg/L	100	9/17/2015 6:44:51 PM	21196
Uranium	ND	0.050		mg/L	100	9/17/2015 6:44:51 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:35:29 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Acenaphthylene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Aniline	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Anthracene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Azobenzene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Benzoic acid	ND	20		µg/L	1	9/4/2015 1:03:11 AM	21120
Benzyl alcohol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Carbazole	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
4-Chloroaniline	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2-Chlorophenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Chrysene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Dibenzofuran	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:35:00 PM

Lab ID: 1509104-012

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Diethyl phthalate	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/4/2015 1:03:11 AM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/4/2015 1:03:11 AM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/4/2015 1:03:11 AM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Fluoranthene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Fluorene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Hexachloroethane	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Isophorone	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2-Methylphenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
3+4-Methylphenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Naphthalene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2-Nitroaniline	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
3-Nitroaniline	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
4-Nitroaniline	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Nitrobenzene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2-Nitrophenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
4-Nitrophenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Pentachlorophenol	ND	20		µg/L	1	9/4/2015 1:03:11 AM	21120
Phenanthrene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Phenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Pyrene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Pyridine	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:35:00 PM

Lab ID: 1509104-012

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/4/2015 1:03:11 AM	21120
Surr: 2-Fluorophenol	31.6	14.9-111		%REC	1	9/4/2015 1:03:11 AM	21120
Surr: Phenol-d5	40.2	11.3-108		%REC	1	9/4/2015 1:03:11 AM	21120
Surr: 2,4,6-Tribromophenol	35.5	15.7-154		%REC	1	9/4/2015 1:03:11 AM	21120
Surr: Nitrobenzene-d5	43.7	47.8-106	S	%REC	1	9/4/2015 1:03:11 AM	21120
Surr: 2-Fluorobiphenyl	34.1	21.3-123		%REC	1	9/4/2015 1:03:11 AM	21120
Surr: 4-Terphenyl-d14	14.9	14.3-135		%REC	1	9/4/2015 1:03:11 AM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.1	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Toluene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:35:00 PM

Lab ID: 1509104-012

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 5:06:45 PM	R28653
Surr: 1,2-Dichloroethane-d4	95.5	70-130	D	%REC	10	9/3/2015 5:06:45 PM	R28653
Surr: 4-Bromofluorobenzene	102	70-130	D	%REC	10	9/3/2015 5:06:45 PM	R28653
Surr: Dibromofluoromethane	112	70-130	D	%REC	10	9/3/2015 5:06:45 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:35:00 PM

Lab ID: 1509104-012

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: Toluene-d8	99.8	70-130	D	%REC	10	9/3/2015 5:06:45 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:45:00 PM

Lab ID: 1509104-013

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.026	0.0050	*	mg/L	5	9/18/2015 2:53:47 PM	B28981
Lead	ND	0.0025		mg/L	5	9/18/2015 2:53:47 PM	B28981
Selenium	0.031	0.0050		mg/L	5	9/18/2015 2:53:47 PM	B28981
Uranium	0.0025	0.0025		mg/L	5	9/18/2015 2:53:47 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	31	10	*	mg/L	100	9/2/2015 10:33:39 PM	R28639
Chloride	4900	250		mg/L	500	9/14/2015 3:26:38 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 10:33:39 PM	R28639
Bromide	ND	10		mg/L	100	9/2/2015 10:33:39 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 10:21:15 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	9/14/2015 3:14:13 PM	R28852
Sulfate	1700	50		mg/L	100	9/2/2015 10:33:39 PM	R28639
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	20000	0.050		µmhos/cm	5	9/8/2015 7:51:12 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	8.31	1.68	H	pH units	1	9/3/2015 1:02:50 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.090	0.0020		mg/L	1	9/10/2015 2:44:14 PM	B28759
Cadmium	ND	0.0020		mg/L	1	9/10/2015 2:44:14 PM	B28759
Calcium	150	5.0		mg/L	5	9/10/2015 2:46:30 PM	B28759
Chromium	0.017	0.0060		mg/L	1	9/11/2015 3:08:57 PM	A28781
Copper	ND	0.0060		mg/L	1	9/10/2015 2:44:14 PM	B28759
Iron	0.17	0.020		mg/L	1	9/10/2015 2:44:14 PM	B28759
Magnesium	110	5.0		mg/L	5	9/10/2015 2:46:30 PM	B28759
Manganese	0.14	0.0020	*	mg/L	1	9/10/2015 2:44:14 PM	B28759
Potassium	170	5.0		mg/L	5	9/10/2015 2:46:30 PM	B28759
Silver	ND	0.0050		mg/L	1	9/10/2015 2:44:14 PM	B28759
Sodium	3400	50		mg/L	50	9/11/2015 4:36:56 PM	A28781
Zinc	ND	0.010		mg/L	1	9/11/2015 3:08:57 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.099	0.0020		mg/L	1	9/10/2015 11:59:04 AM	21196
Cadmium	ND	0.0020		mg/L	1	9/10/2015 11:59:04 AM	21196
Chromium	0.020	0.0060		mg/L	1	9/10/2015 11:59:04 AM	21196
Copper	ND	0.0060		mg/L	1	9/10/2015 11:59:04 AM	21196
Iron	0.28	0.020		mg/L	1	9/10/2015 11:59:04 AM	21196
Manganese	0.14	0.0020	*	mg/L	1	9/10/2015 11:59:04 AM	21196
Silver	ND	0.0050		mg/L	1	9/10/2015 11:59:04 AM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:45:00 PM

Lab ID: 1509104-013

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	ND	0.010		mg/L	1	9/10/2015 11:59:04 AM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.029	0.010	*	mg/L	10	9/17/2015 7:02:59 PM	21196
Lead	ND	0.0025		mg/L	5	9/17/2015 7:06:00 PM	21196
Selenium	0.038	0.010		mg/L	10	9/17/2015 7:02:59 PM	21196
Uranium	0.0029	0.0025		mg/L	5	9/17/2015 7:06:00 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:37:33 PM	21297
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Acenaphthylene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Aniline	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Anthracene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Azobenzene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Benzoic acid	ND	20		µg/L	1	9/4/2015 1:33:28 AM	21120
Benzyl alcohol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Carbazole	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
4-Chloroaniline	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2-Chlorophenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Chrysene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Dibenzofuran	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:45:00 PM

Lab ID: 1509104-013

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Diethyl phthalate	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/4/2015 1:33:28 AM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/4/2015 1:33:28 AM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/4/2015 1:33:28 AM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Fluoranthene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Fluorene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Hexachloroethane	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Isophorone	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2-Methylphenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
3+4-Methylphenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Naphthalene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2-Nitroaniline	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
3-Nitroaniline	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
4-Nitroaniline	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Nitrobenzene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2-Nitrophenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
4-Nitrophenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Pentachlorophenol	ND	20		µg/L	1	9/4/2015 1:33:28 AM	21120
Phenanthrene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Phenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Pyrene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Pyridine	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:45:00 PM

Lab ID: 1509104-013

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/4/2015 1:33:28 AM	21120
Surr: 2-Fluorophenol	31.4	14.9-111		%REC	1	9/4/2015 1:33:28 AM	21120
Surr: Phenol-d5	35.7	11.3-108		%REC	1	9/4/2015 1:33:28 AM	21120
Surr: 2,4,6-Tribromophenol	43.6	15.7-154		%REC	1	9/4/2015 1:33:28 AM	21120
Surr: Nitrobenzene-d5	49.0	47.8-106		%REC	1	9/4/2015 1:33:28 AM	21120
Surr: 2-Fluorobiphenyl	46.3	21.3-123		%REC	1	9/4/2015 1:33:28 AM	21120
Surr: 4-Terphenyl-d14	35.3	14.3-135		%REC	1	9/4/2015 1:33:28 AM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Toluene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:45:00 PM

Lab ID: 1509104-013

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 5:34:14 PM	R28653
Surr: 1,2-Dichloroethane-d4	93.8	70-130	D	%REC	10	9/3/2015 5:34:14 PM	R28653
Surr: 4-Bromofluorobenzene	106	70-130	D	%REC	10	9/3/2015 5:34:14 PM	R28653
Surr: Dibromofluoromethane	111	70-130	D	%REC	10	9/3/2015 5:34:14 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 12:45:00 PM

Lab ID: 1509104-013

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: Toluene-d8	99.1	70-130	D	%REC	10	9/3/2015 5:34:14 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:00:00 PM

Lab ID: 1509104-014

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.010	0.0050	*	mg/L	5	9/18/2015 2:44:35 PM	B28981
Lead	ND	0.010		mg/L	20	9/18/2015 3:15:16 PM	B28981
Selenium	0.014	0.0050		mg/L	5	9/18/2015 2:44:35 PM	B28981
Uranium	ND	0.010		mg/L	20	9/18/2015 3:15:16 PM	B28981
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	51	10	*	mg/L	100	9/2/2015 10:58:29 PM	R28639
Chloride	3200	100		mg/L	200	9/14/2015 3:51:28 PM	R28852
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	9/2/2015 10:58:29 PM	R28639
Bromide	ND	10		mg/L	100	9/2/2015 10:58:29 PM	R28639
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	9/2/2015 10:46:04 PM	R28639
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	9/14/2015 3:39:03 PM	R28852
Sulfate	900	50		mg/L	100	9/2/2015 10:58:29 PM	R28639
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	15000	1.0		µmhos/cm	100	9/8/2015 7:55:28 PM	R28726
SM4500-H+B: PH							Analyst: JRR
pH	7.96	1.68	H	pH units	1	9/3/2015 1:15:06 PM	R28682
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.12	0.0020		mg/L	1	9/10/2015 2:48:32 PM	B28759
Cadmium	ND	0.0020		mg/L	1	9/10/2015 2:48:32 PM	B28759
Calcium	180	5.0		mg/L	5	9/10/2015 2:50:44 PM	B28759
Chromium	0.0092	0.0060		mg/L	1	9/11/2015 3:15:15 PM	A28781
Copper	ND	0.0060		mg/L	1	9/10/2015 2:48:32 PM	B28759
Iron	0.35	0.020	*	mg/L	1	9/10/2015 2:48:32 PM	B28759
Magnesium	63	1.0		mg/L	1	9/10/2015 2:48:32 PM	B28759
Manganese	0.27	0.0020	*	mg/L	1	9/10/2015 2:48:32 PM	B28759
Potassium	90	5.0		mg/L	5	9/10/2015 2:50:44 PM	B28759
Silver	ND	0.0050		mg/L	1	9/10/2015 2:48:32 PM	B28759
Sodium	2200	50		mg/L	50	9/11/2015 4:38:57 PM	A28781
Zinc	0.015	0.010		mg/L	1	9/11/2015 3:15:15 PM	A28781
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	9/10/2015 12:03:20 PM	21196
Cadmium	ND	0.0020		mg/L	1	9/10/2015 12:03:20 PM	21196
Chromium	0.013	0.0060		mg/L	1	9/10/2015 12:03:20 PM	21196
Copper	ND	0.0060		mg/L	1	9/10/2015 12:03:20 PM	21196
Iron	0.55	0.020	*	mg/L	1	9/10/2015 12:03:20 PM	21196
Manganese	0.26	0.0020	*	mg/L	1	9/10/2015 12:03:20 PM	21196
Silver	ND	0.0050		mg/L	1	9/10/2015 12:03:20 PM	21196

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:00:00 PM

Lab ID: 1509104-014

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Zinc	0.015	0.010		mg/L	1	9/10/2015 12:03:20 PM	21196
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.014	0.0050	*	mg/L	5	9/17/2015 7:15:04 PM	21196
Lead	ND	0.0025		mg/L	5	9/17/2015 7:15:04 PM	21196
Selenium	0.017	0.0050		mg/L	5	9/17/2015 7:15:04 PM	21196
Uranium	0.0035	0.0025		mg/L	5	9/17/2015 7:15:04 PM	21196
EPA METHOD 245.1: MERCURY							Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/15/2015 3:48:01 PM	21298
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Acenaphthylene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Aniline	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Anthracene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Azobenzene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Benz(a)anthracene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Benzo(a)pyrene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Benzo(b)fluoranthene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Benzo(k)fluoranthene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Benzoic acid	ND	20		µg/L	1	9/4/2015 2:03:36 AM	21120
Benzyl alcohol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Butyl benzyl phthalate	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Carbazole	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
4-Chloroaniline	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2-Chloronaphthalene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2-Chlorophenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Chrysene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Di-n-butyl phthalate	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Di-n-octyl phthalate	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Dibenzofuran	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:00:00 PM

Lab ID: 1509104-014

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
1,3-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
1,4-Dichlorobenzene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Diethyl phthalate	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Dimethyl phthalate	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2,4-Dichlorophenol	ND	20		µg/L	1	9/4/2015 2:03:36 AM	21120
2,4-Dimethylphenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/4/2015 2:03:36 AM	21120
2,4-Dinitrophenol	ND	20		µg/L	1	9/4/2015 2:03:36 AM	21120
2,4-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2,6-Dinitrotoluene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Fluoranthene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Fluorene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Hexachlorobenzene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Hexachlorobutadiene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Hexachloroethane	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Isophorone	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
1-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2-Methylphenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
3+4-Methylphenol	34	10		µg/L	1	9/4/2015 2:03:36 AM	21120
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Naphthalene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2-Nitroaniline	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
3-Nitroaniline	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
4-Nitroaniline	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Nitrobenzene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2-Nitrophenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
4-Nitrophenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Pentachlorophenol	ND	20		µg/L	1	9/4/2015 2:03:36 AM	21120
Phenanthrene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Phenol	86	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Pyrene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Pyridine	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:00:00 PM

Lab ID: 1509104-014

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/4/2015 2:03:36 AM	21120
Surr: 2-Fluorophenol	24.5	14.9-111		%REC	1	9/4/2015 2:03:36 AM	21120
Surr: Phenol-d5	27.2	11.3-108		%REC	1	9/4/2015 2:03:36 AM	21120
Surr: 2,4,6-Tribromophenol	39.8	15.7-154		%REC	1	9/4/2015 2:03:36 AM	21120
Surr: Nitrobenzene-d5	31.3	47.8-106	S	%REC	1	9/4/2015 2:03:36 AM	21120
Surr: 2-Fluorobiphenyl	30.3	21.3-123		%REC	1	9/4/2015 2:03:36 AM	21120
Surr: 4-Terphenyl-d14	25.4	14.3-135		%REC	1	9/4/2015 2:03:36 AM	21120
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	9.9	5.0	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Toluene	21	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Ethylbenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Methyl tert-butyl ether (MTBE)	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Naphthalene	ND	20	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
2-Methylnaphthalene	ND	40	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Acetone	ND	100	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Bromobenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Bromodichloromethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Bromoform	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Bromomethane	ND	30	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
2-Butanone	ND	100	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Carbon disulfide	ND	100	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Carbon Tetrachloride	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Chlorobenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Chloroethane	ND	20	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Chloroform	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Chloromethane	ND	30	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
2-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
4-Chlorotoluene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
cis-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Dibromochloromethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509104

Date Reported: 10/1/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:00:00 PM

Lab ID: 1509104-014

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromomethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,3-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,4-Dichlorobenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Dichlorodifluoromethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,1-Dichloroethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,1-Dichloroethene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,3-Dichloropropane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
2,2-Dichloropropane	ND	20	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,1-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Hexachlorobutadiene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
2-Hexanone	ND	100	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Isopropylbenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
4-Isopropyltoluene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
4-Methyl-2-pentanone	ND	100	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Methylene Chloride	ND	30	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
n-Butylbenzene	ND	30	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
n-Propylbenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
sec-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Styrene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
tert-Butylbenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
trans-1,2-DCE	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,1,1-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,1,2-Trichloroethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Trichloroethene (TCE)	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Trichlorofluoromethane	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
1,2,3-Trichloropropane	ND	20	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Vinyl chloride	ND	10	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Xylenes, Total	ND	15	D	µg/L	10	9/3/2015 6:01:45 PM	R28653
Surr: 1,2-Dichloroethane-d4	100	70-130	D	%REC	10	9/3/2015 6:01:45 PM	R28653
Surr: 4-Bromofluorobenzene	106	70-130	D	%REC	10	9/3/2015 6:01:45 PM	R28653
Surr: Dibromofluoromethane	112	70-130	D	%REC	10	9/3/2015 6:01:45 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509104**

Date Reported: **10/1/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2015 Semi-Annual Ponds

Collection Date: 9/1/2015 1:00:00 PM

Lab ID: 1509104-014

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: Toluene-d8	94.2	70-130	D	%REC	10	9/3/2015 6:01:45 PM	R28653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28759		RunNo: 28759					
Prep Date:			Analysis Date: 9/10/2015		SeqNo: 871972		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.9	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Copper	0.47	0.0060	0.5000	0	94.2	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.49	0.0020	0.5000	0	97.9	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.089	0.0050	0.1000	0	88.8	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28759		RunNo: 28759					
Prep Date:			Analysis Date: 9/10/2015		SeqNo: 871973		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	90.0	50	150			
Cadmium	ND	0.0020	0.002000	0	93.5	50	150			
Calcium	ND	1.0	0.5000	0	123	50	150			
Copper	ND	0.0060	0.006000	0	98.2	50	150			
Iron	0.021	0.020	0.02000	0	105	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Potassium	ND	1.0	0.5000	0	104	50	150			
Silver	ND	0.0050	0.005000	0	86.0	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: B28759			RunNo: 28759					
Prep Date:		Analysis Date: 9/10/2015			SeqNo: 871977		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A28781	RunNo:	28781					
Prep Date:		Analysis Date:	9/11/2015	SeqNo:	872822	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	48	1.0	50.00	0	96.9	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Copper	0.47	0.0060	0.5000	0	93.0	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.46	0.0020	0.5000	0	92.4	85	115			
Potassium	49	1.0	50.00	0	97.2	85	115			
Silver	0.089	0.0050	0.1000	0	89.1	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID	LLCS	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A28781	RunNo:	28781					
Prep Date:		Analysis Date:	9/11/2015	SeqNo:	872823	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	92.0	50	150			
Cadmium	0.0022	0.0020	0.002000	0	109	50	150			
Calcium	ND	1.0	0.5000	0	96.9	50	150			
Chromium	ND	0.0060	0.006000	0	82.5	50	150			
Copper	ND	0.0060	0.006000	0	96.5	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			
Manganese	ND	0.0020	0.002000	0	93.0	50	150			
Potassium	ND	1.0	0.5000	0	105	50	150			
Silver	ND	0.0050	0.005000	0	86.8	50	150			
Sodium	ND	1.0	0.5000	0	87.1	50	150			
Zinc	ND	0.010	0.005000	0	103	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A28781	RunNo:	28781					
Prep Date:		Analysis Date:	9/11/2015	SeqNo:	872843	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Magnesium	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup**Project:** 2015 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A28781	RunNo:	28781					
Prep Date:		Analysis Date:	9/11/2015	SeqNo:	872843	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	MB-21196		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 21196		RunNo: 28759					
Prep Date:	9/9/2015		Analysis Date: 9/10/2015		SeqNo: 871983		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-21196		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 21196		RunNo: 28759					
Prep Date:	9/9/2015		Analysis Date: 9/10/2015		SeqNo: 871984		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.9	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.48	0.0060	0.5000	0	96.4	85	115			
Iron	0.53	0.020	0.5000	0	105	85	115			
Manganese	0.50	0.0020	0.5000	0	99.0	85	115			
Silver	0.087	0.0050	0.1000	0	86.9	85	115			
Zinc	0.50	0.010	0.5000	0	99.0	85	115			

Sample ID	LLLCS-21196			SampType:	LCSLL			TestCode:	EPA Method 200.7: Total Metals		
Client ID:	BatchQC			Batch ID:	21196			RunNo:	28759		
Prep Date:	9/9/2015			Analysis Date:	9/10/2015			SeqNo:	871985		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	ND	0.0020	0.002000	0	81.0	50	150				
Cadmium	ND	0.0020	0.002000	0	89.0	50	150				
Chromium	0.0071	0.0060	0.006000	0	119	50	150				
Iron	ND	0.020	0.02000	0	94.3	50	150				
Manganese	ND	0.0020	0.002000	0	99.0	50	150				
Silver	ND	0.0050	0.005000	0	80.8	50	150				

Sample ID	LLLCS-21196		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals						
Client ID:	BatchQC		Batch ID: 21196		RunNo: 28759						
Prep Date:	9/9/2015		Analysis Date: 9/10/2015		SeqNo: 872002		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	LLLCS-21196	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	21196	RunNo:	28759					
Prep Date:	9/9/2015	Analysis Date:	9/10/2015	SeqNo:	872002	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.011	0.0060	0.006000	0	178	50	150			S
Zinc	ND	0.010	0.005000	0	88.2	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B28981		RunNo: 28981					
Prep Date:			Analysis Date: 9/18/2015		SeqNo: 879546		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.3	85	115			
Lead	0.012	0.00050	0.01250	0	99.4	85	115			
Selenium	0.023	0.0010	0.02500	0	91.2	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B28981		RunNo: 28981					
Prep Date:			Analysis Date: 9/18/2015		SeqNo: 879550		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	93.3	50	150			
Lead	0.00054	0.00050	0.0005000	0	109	50	150			
Selenium	ND	0.0010	0.001000	0	89.0	50	150			
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: B28981			RunNo: 28981					
Prep Date:		Analysis Date: 9/18/2015			SeqNo: 879554		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	MB-21196		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 21196		RunNo: 28767					
Prep Date:	9/9/2015		Analysis Date: 9/10/2015		SeqNo: 872573		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-21196		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 21196		RunNo: 28767					
Prep Date:	9/9/2015		Analysis Date: 9/10/2015		SeqNo: 872578		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.6	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.024	0.0010	0.02500	0	95.7	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	MSLLCS-21196		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 21196		RunNo: 28767					
Prep Date:	9/9/2015		Analysis Date: 9/10/2015		SeqNo: 872582		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	105	50	150			
Lead	0.00054	0.00050	0.0005000	0	108	50	150			
Selenium	ND	0.0010	0.001000	0	97.1	50	150			
Uranium	0.00052	0.00050	0.0005000	0	103	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	MB-21297		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 21297		RunNo: 28872					
Prep Date:	9/15/2015		Analysis Date: 9/15/2015		SeqNo: 875752		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-21297		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 21297		RunNo: 28872					
Prep Date:	9/15/2015		Analysis Date: 9/15/2015		SeqNo: 875753		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.5	80	120			

Sample ID	MB-21298		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 21298		RunNo: 28872					
Prep Date:	9/15/2015		Analysis Date: 9/15/2015		SeqNo: 875782		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-21298		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 21298		RunNo: 28872					
Prep Date:	9/15/2015		Analysis Date: 9/15/2015		SeqNo: 875785		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.4	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28639	RunNo:	28639					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	866937	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28639	RunNo:	28639					
Prep Date:		Analysis Date:	9/2/2015	SeqNo:	866938	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	101	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.2	90	110			
Bromide	2.5	0.10	2.500	0	102	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.3	90	110			
Sulfate	9.8	0.50	10.00	0	98.3	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28852	RunNo:	28852					
Prep Date:		Analysis Date:	9/14/2015	SeqNo:	875093	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28852	RunNo:	28852					
Prep Date:		Analysis Date:	9/14/2015	SeqNo:	875094	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.7	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	98.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.4	90	110			
Sulfate	9.8	0.50	10.00	0	98.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R28880	RunNo:	28880					
Prep Date:		Analysis Date:	9/15/2015	SeqNo:	876127	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R28880	RunNo:	28880					
Prep Date:		Analysis Date:	9/15/2015	SeqNo:	876128	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R28653			RunNo: 28653					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867339	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R28653				RunNo: 28653				
Prep Date:		Analysis Date: 9/3/2015				SeqNo: 867339	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.1		10.00		91.4	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R28653				RunNo: 28653				
Prep Date:		Analysis Date: 9/3/2015				SeqNo: 867340	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	20	1.0	20.00	0	99.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	100ng lcs		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R28653			RunNo: 28653				
Prep Date:	Analysis Date: 9/3/2015			SeqNo: 867340		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	98.3	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID	1509104-004a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	EP-2	Batch ID: R28653			RunNo: 28653					
Prep Date:		Analysis Date: 9/3/2015			SeqNo: 867344		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	230	10	200.0	10.33	109	70	130			D
Toluene	230	10	200.0	21.93	102	70	130			D
Chlorobenzene	210	10	200.0	0	105	70	130			D
1,1-Dichloroethene	210	10	200.0	2.586	103	70	130			D
Trichloroethene (TCE)	220	10	200.0	0	112	70	130			D
Surr: 1,2-Dichloroethane-d4	95		100.0		95.1	70	130			D
Surr: 4-Bromofluorobenzene	110		100.0		106	70	130			D
Surr: Dibromofluoromethane	110		100.0		112	70	130			D
Surr: Toluene-d8	97		100.0		96.6	70	130			D

Sample ID	1509104-004a msd			SampType: MSD		TestCode: EPA Method 8260B: VOLATILES				
Client ID:	EP-2		Batch ID: R28653		RunNo: 28653					
Prep Date:			Analysis Date: 9/3/2015		SeqNo: 867345		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	230	10	200.0	10.33	109	70	130	0.0822	20	D
Toluene	220	10	200.0	21.93	101	70	130	0.650	20	D
Chlorobenzene	200	10	200.0	0	101	70	130	3.68	20	D
1,1-Dichloroethene	220	10	200.0	2.586	107	70	130	3.83	20	D
Trichloroethene (TCE)	220	10	200.0	0	110	70	130	1.36	20	D
Surr: 1,2-Dichloroethane-d4	98		100.0		98.0	70	130	0	0	D
Surr: 4-Bromofluorobenzene	100		100.0		99.7	70	130	0	0	D
Surr: Dibromofluoromethane	120		100.0		117	70	130	0	0	D
Surr: Toluene-d8	95		100.0		95.0	70	130	0	0	D

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	mb-21120	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	21120	RunNo:	28655					
Prep Date:	9/3/2015	Analysis Date:	9/3/2015	SeqNo:	867796	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	mb-21120	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	21120	RunNo:	28655					
Prep Date:	9/3/2015	Analysis Date:	9/3/2015	SeqNo:	867796	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	120		200.0		62.1	14.9	111			
Surr: Phenol-d5	130		200.0		67.4	11.3	108			
Surr: 2,4,6-Tribromophenol	130		200.0		65.4	15.7	154			
Surr: Nitrobenzene-d5	73		100.0		72.5	47.8	106			
Surr: 2-Fluorobiphenyl	75		100.0		75.2	21.3	123			
Surr: 4-Terphenyl-d14	81		100.0		81.3	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	Ics-21120		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 21120		RunNo: 28655					
Prep Date:	9/3/2015		Analysis Date: 9/3/2015		SeqNo: 867797		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	75	10	100.0	0	74.6	47.8	99.7			
4-Chloro-3-methylphenol	160	10	200.0	0	79.0	58.1	103			
2-Chlorophenol	160	10	200.0	0	78.9	49.5	96.8			
1,4-Dichlorobenzene	75	10	100.0	0	75.2	40.4	89.4			
2,4-Dinitrotoluene	63	10	100.0	0	63.4	38.6	91.3			
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.6	53.9	95.6			
4-Nitrophenol	150	10	200.0	0	74.1	26.4	108			
Pentachlorophenol	140	20	200.0	0	70.0	36.5	86.6			
Phenol	160	10	200.0	0	79.9	29.3	108			
Pyrene	70	10	100.0	0	70.3	45.7	100			
1,2,4-Trichlorobenzene	81	10	100.0	0	81.1	39.3	94.5			
Surr: 2-Fluorophenol	150		200.0		75.3	14.9	111			
Surr: Phenol-d5	160		200.0		79.8	11.3	108			
Surr: 2,4,6-Tribromophenol	160		200.0		78.0	15.7	154			
Surr: Nitrobenzene-d5	78		100.0		78.5	47.8	106			
Surr: 2-Fluorobiphenyl	80		100.0		80.3	21.3	123			
Surr: 4-Terphenyl-d14	69		100.0		69.2	14.3	135			

Sample ID	Icsd-21120		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 21120		RunNo: 28655					
Prep Date:	9/3/2015		Analysis Date: 9/3/2015		SeqNo: 867798		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.0	47.8	99.7	2.17	28.2	
4-Chloro-3-methylphenol	160	10	200.0	0	77.8	58.1	103	1.45	24.4	
2-Chlorophenol	140	10	200.0	0	71.4	49.5	96.8	10.0	28.1	
1,4-Dichlorobenzene	65	10	100.0	0	65.0	40.4	89.4	14.7	31.2	
2,4-Dinitrotoluene	53	10	100.0	0	53.3	38.6	91.3	17.3	44.4	
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.8	53.9	95.6	9.00	24.2	
4-Nitrophenol	140	10	200.0	0	70.4	26.4	108	5.11	36.6	
Pentachlorophenol	150	20	200.0	0	76.3	36.5	86.6	8.60	29.5	
Phenol	150	10	200.0	0	76.0	29.3	108	5.05	30	
Pyrene	77	10	100.0	0	77.1	45.7	100	9.34	31	
1,2,4-Trichlorobenzene	80	10	100.0	0	80.5	39.3	94.5	0.718	24	
Surr: 2-Fluorophenol	130		200.0		65.8	14.9	111	0	0	
Surr: Phenol-d5	150		200.0		74.0	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		84.9	15.7	154	0	0	
Surr: Nitrobenzene-d5	78		100.0		78.2	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	83		100.0		82.9	21.3	123	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup**Project:** 2015 Semi-Annual Ponds

Sample ID	lcsd-21120		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 21120		RunNo: 28655					
Prep Date:	9/3/2015		Analysis Date: 9/3/2015		SeqNo: 867798		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	67		100.0		67.1	14.3	135	0	0	

Sample ID	mb-21154		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 21154		RunNo: 28768					
Prep Date:	9/4/2015		Analysis Date: 9/10/2015		SeqNo: 872494		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Acenaphthene	ND	10
Acenaphthylene	ND	10
Aniline	ND	10
Anthracene	ND	10
Azobenzene	ND	10
Benz(a)anthracene	ND	10
Benzo(a)pyrene	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(g,h,i)perylene	ND	10
Benzo(k)fluoranthene	ND	10
Benzoic acid	ND	20
Benzyl alcohol	ND	10
Bis(2-chloroethoxy)methane	ND	10
Bis(2-chloroethyl)ether	ND	10
Bis(2-chloroisopropyl)ether	ND	10
Bis(2-ethylhexyl)phthalate	ND	10
4-Bromophenyl phenyl ether	ND	10
Butyl benzyl phthalate	ND	10
Carbazole	ND	10
4-Chloro-3-methylphenol	ND	10
4-Chloroaniline	ND	10
2-Chloronaphthalene	ND	10
2-Chlorophenol	ND	10
4-Chlorophenyl phenyl ether	ND	10
Chrysene	ND	10
Di-n-butyl phthalate	ND	10
Di-n-octyl phthalate	ND	10
Dibenz(a,h)anthracene	ND	10
Dibenzofuran	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	mb-21154	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	21154	RunNo:	28768					
Prep Date:	9/4/2015	Analysis Date:	9/10/2015	SeqNo:	872494	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	mb-21154		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 21154		RunNo: 28768					
Prep Date:	9/4/2015		Analysis Date: 9/10/2015		SeqNo: 872494		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	160		200.0		81.8	14.9	111			
Surr: Phenol-d5	180		200.0		92.4	11.3	108			
Surr: 2,4,6-Tribromophenol	190		200.0		97.1	15.7	154			
Surr: Nitrobenzene-d5	90		100.0		89.8	47.8	106			
Surr: 2-Fluorobiphenyl	90		100.0		89.8	21.3	123			
Surr: 4-Terphenyl-d14	74		100.0		73.8	14.3	135			

Sample ID	lcs-21154		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 21154		RunNo: 28768					
Prep Date:	9/4/2015		Analysis Date: 9/10/2015		SeqNo: 872495		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	60.5	47.8	99.7			
4-Chloro-3-methylphenol	120	10	200.0	0	61.4	58.1	103			
2-Chlorophenol	120	10	200.0	0	61.1	49.5	96.8			
1,4-Dichlorobenzene	59	10	100.0	0	59.0	40.4	89.4			
2,4-Dinitrotoluene	52	10	100.0	0	52.1	38.6	91.3			
N-Nitrosodi-n-propylamine	62	10	100.0	0	61.5	53.9	95.6			
4-Nitrophenol	130	10	200.0	0	64.7	26.4	108			
Pentachlorophenol	130	20	200.0	0	64.0	36.5	86.6			
Phenol	130	10	200.0	0	63.2	29.3	108			
Pyrene	61	10	100.0	0	61.3	45.7	100			
1,2,4-Trichlorobenzene	66	10	100.0	0	66.1	39.3	94.5			
Surr: 2-Fluorophenol	110		200.0		55.3	14.9	111			
Surr: Phenol-d5	130		200.0		66.8	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		73.8	15.7	154			
Surr: Nitrobenzene-d5	69		100.0		69.1	47.8	106			
Surr: 2-Fluorobiphenyl	72		100.0		71.9	21.3	123			
Surr: 4-Terphenyl-d14	50		100.0		49.6	14.3	135			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID 1509104-004c dup		SampType: DUP			TestCode: SM2510B: Specific Conductance					
Client ID: EP-2		Batch ID: R28726			RunNo: 28726					
Prep Date:		Analysis Date: 9/8/2015			SeqNo: 870627		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	14000	1.0						3.29	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509104

01-Oct-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID		1509104-004c dup		SampType: DUP		TestCode: SM4500-H+B: pH				
Client ID:		EP-2		Batch ID: R28682		RunNo: 28682				
Prep Date:				Analysis Date: 9/3/2015		SeqNo: 869065		Units: pH units		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.86	1.68								H

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1509104

RcptNo: 1

Received by/date:

CS

09/02/15

Logged By: Ashley Gallegos

9/2/2015 11:55:00 AM

Ag

Completed By: Ashley Gallegos

9/2/2015 12:05:24 PM

Ag

Reviewed By:

CS

09/02/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: 32
(<2 or >12 unless noted)
Adjusted? NO
Checked by: [Signature]

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes			

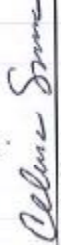
**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel 505-345-3975 Fax 505-345-4107

Analysis Request

Chain-of-Custody Record				Turn-Around Time:		
Client:		Western Refining Company		X Standard	☐ Rush	
Mailing Address:		Gallup Refinery		Project Name:		
92 GIANT CROSSING RD, GALLUP, NM 87301				2015 SEMI-ANNUAL - PONDS		
Phone #: 505-722-3833				Project #: PO # 20825207		
email or Fax#: 505-863-0930				EP-2 THRU 12B		
QA/QC Package:				Project Manager:		
☐ Standard		☐ Level 4 (Full Validation)		C. JOHNSON (cheryl.johnson@wnr.com)		
Accreditation:				Sampler: C. JOHNSON		
☐ NELAP		☐ Other		On Ice: ☒ Yes ☐ No		
☐ EDD (Type)				Sample Temperature: 38°C		
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/1/2015	800	Aqueous	TRIP BLANK	40ML VOAS	HCL	-001
9/1/2015	800	Aqueous	FIELD BLANK	40ML VOAS	HCL	-002
9/1/2015	800	Aqueous	BLIND DUPLICATE	1L-AMBER	NONE	-003
9/1/2015	1430	Aqueous	EP-2	MISC	MISC	-004
9/1/2015	1320	Aqueous	EP-3	MISC	MISC	-005
9/1/2015	1340	Aqueous	EP-4	MISC	MISC	-006
9/1/2015	1400	Aqueous	EP-5	MISC	MISC	-007
9/1/2015	1415	Aqueous	EP-6	MISC	MISC	-008
9/1/2015	1210	Aqueous	EP-7	MISC	MISC	-009
9/1/2015	1220	Aqueous	EP-8	MISC	MISC	-010
9/1/2015	1140	Aqueous	EP-9	MISC	MISC	-011
9/1/2015	1235	Aqueous	EP-11	MISC	MISC	-012
9/1/2015	1245	Aqueous	EP-12A	MISC	MISC	-013
9/1/2015	1300	Aqueous	EP-12B	MISC	MISC	-014
Date: 9/2/2015		Relinquished by: 		Received by: 		Date: 09/02/15
Date:	Time: 1155	Relinquished by:		Received by:		Date: 09/02/15
Date:	Time:	Relinquished by:		Received by:		Date: 09/02/15



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 16, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 Semi-Annual Ponds

OrderNo.: 1509105

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 11 sample(s) on 9/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1509105
Date: 9/16/2015

CLIENT: Western Refining Southwest, Gallup
Project: 2015 Semi-Annual Ponds

Analytical Comments Regarding BOD:
The method blank(s) had a DO depletion >0.2mg/L.
The LCS/LCSD are reported with a > result due to seed overdepletion.

Analytical Notes Regarding COD:
"J6" qualifier is used to note that the sample matrix interfered with the ability to make an accurate determination; spike value is low.

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509105**

Date Reported: **9/16/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 7:10:00 AM

Lab ID: 1509105-001

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	460	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	5475	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509105**

Date Reported: **9/16/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 7:15:00 AM

Lab ID: 1509105-002

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	120	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	1076	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509105**

Date Reported: **9/16/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 7:20:00 AM

Lab ID: 1509105-003

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	110	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	880	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509105

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 7:30:00 AM

Lab ID: 1509105-004

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	17	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	1515	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509105**

Date Reported: **9/16/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 7:45:00 AM

Lab ID: 1509105-005

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	8.0	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	341	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509105

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 8:20:00 AM

Lab ID: 1509105-006

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	21	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509105

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 8:30:00 AM

Lab ID: 1509105-007

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	32	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	10	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509105

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 8:40:00 AM

Lab ID: 1509105-008

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	20	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	74	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509105**

Date Reported: **9/16/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 8:15:00 AM

Lab ID: 1509105-009

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	30	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	10	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509105

Date Reported: 9/16/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 7:35:00 AM

Lab ID: 1509105-010

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	150	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	8164	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1509105**

Date Reported: **9/16/2015**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2015 Semi-Annual Ponds

Collection Date: 9/2/2015 8:05:00 AM

Lab ID: 1509105-011

Matrix: AQUEOUS

Received Date: 9/2/2015 11:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	300	2.0		mg/L	1	9/8/2015 1:02:00 PM	21119
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	3873	10.00		CFU/100ml	10	9/3/2015 4:02:00 PM	21111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch	1	2	3	4	5	6	7	8	9
	mg/l		mg/l		date / time										
COD	775		10.0	1	09/14/2015 11:47	WG814892		Tc	Ss	Cn	Sr	Qc	Gl	Al	Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	725		10.0	1	09/14/2015 11:48	WG814892

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

³Al

⁹Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	909		10.0	1	09/14/2015 11:49	<u>WG814892</u>

² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	979		50.0	5	09/14/2015 11:50	<u>WG814892</u>

² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
COD	1700		50.0	5	09/14/2015 11:50	<u>WG814892</u>	2 Tc 3 Ss 4 Cn 5 Sr 6 Qc 7 Gl 8 Al 9 Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	1960		500	50	09/14/2015 17:09	<u>WG814893</u>

² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	880		500	50	09/15/2015 10:50	<u>WG815126</u>

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	1480	J6	500	50	09/15/2015 13:22	WG815313

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	1120		1000	100	09/14/2015 17:11	WG814893

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	755		10.0	1	09/14/2015 17:15	<u>WG814893</u>

² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	657		10.0	1	09/14/2015 17:15	<u>WG814893</u>

² Ic³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

{MB} 09/14/15 11:33

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L786949-01 Original Sample (OS) • Duplicate (DUP)

{OS} 09/14/15 11:43 • {DUP} 09/14/15 11:43

Analyte	Original Result mg/l	DUP Result mg/l	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	280	280	0.00		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

{LCS} 09/14/15 11:34 • {LCSD} 09/14/15 11:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCSD Qualifier	RPD %	RPD Limits %
COD	183	180	181	98.4	98.9	90.0-110		0.554	5

L786949-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

{OS} 09/14/15 11:43 • {MS} 09/14/15 11:43 • {MSD} 09/14/15 11:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	276	671	672	98.8	99.0	1	90.0-110			0.149	5

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

Wet Chemistry by Method 410.4

L787012-06,09,10,11

Method Blank (MB)

(MB) 09/14/15 17:05

Analyte	MB Result	MB Qualifier	MB RDL
COD	ND		10.0

L787012-06 Original Sample (OS) • Duplicate (DUP)

(OS) 09/14/15 17:09 • (DUP) 09/14/15 17:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	2000	2000	50	1.0		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 09/14/15 17:06 • (LCSD) 09/14/15 17:06

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
COD	242	240	240	99.2	99.2	90.0-110			0.000	5

L787252-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 09/14/15 17:15 • (MS) 09/14/15 17:15 • (MSD) 09/14/15 17:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
COD	400	521	922	922	100	100	1	90.0-110			0.000	5

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

Method Blank (MB)

(MB) 09/15/15 10:35

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

L787012-07 Original Sample (OS) • Duplicate (DUP)

(OS) 09/15/15 10:50 • (DUP) 09/15/15 10:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	880	900	50	2.0		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 09/15/15 10:35 • (LCSD) 09/15/15 10:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	234	235	96.7	97.1	90.0-110			0.426	5

L786751-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 09/15/15 10:38 • (MS) 09/15/15 10:39 • (MSD) 09/15/15 10:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	ND	409	406	102	102	1	90.0-110			0.736	5

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

Method Blank (MB)

(MB) 09/15/15 13:19

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L787012-08 Original Sample (OS) • Duplicate (DUP)

(OS) 09/15/15 13:22 • (DUP) 09/15/15 13:22

Analyte	Original Result mg/l	DUP Result mg/l	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	1500	1500	0.00		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 09/15/15 13:20 • (LCSD) 09/15/15 13:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	234	236	96.7	97.5	90.0-110			0.851	5

L787012-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 09/15/15 13:22 • (MS) 09/15/15 13:23 • (MSD) 09/15/15 13:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	1480	16200	16200	73.6	73.4	50	90.0-110	J6	J6	0.247	5

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509105

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	MB-21119		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 21119		RunNo: 28800					
Prep Date:	9/3/2015		Analysis Date: 9/8/2015		SeqNo: 873255		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB--21119		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 21119		RunNo: 28800					
Prep Date:	9/3/2015		Analysis Date: 9/8/2015		SeqNo: 873256		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-21119		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: 21119		RunNo: 28800					
Prep Date:	9/3/2015		Analysis Date: 9/8/2015		SeqNo: 873257		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	>275.60	2.0	198.0	0	139	84.6	115.4			S

Sample ID	LCSD-21119		SampType: LCSD		TestCode: SM5210B: BOD					
Client ID:	LCSS02		Batch ID: 21119		RunNo: 28800					
Prep Date:	9/3/2015		Analysis Date: 9/8/2015		SeqNo: 873258		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	230	2.0	198.0	0	117	84.6	115.4	16.9	20	S

Sample ID	1509105-001BDUP		SampType: DUP		TestCode: SM5210B: BOD					
Client ID:	EP-2		Batch ID: 21119		RunNo: 28800					
Prep Date:	9/3/2015		Analysis Date: 9/8/2015		SeqNo: 873260		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	420	2.0						8.62	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509105

16-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015 Semi-Annual Ponds

Sample ID	MB-21111	SampType:	MBLK	TestCode:	SM 9223B	Fecal Indicator:	E. coli	MPN		
Client ID:	PBW	Batch ID:	21111	RunNo:	28776					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	872754	Units:	CFU/100ml			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.000								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1509105**

RcptNo: 1

Received by/date:

CS

09/02/15

Logged By: **Ashley Gallegos**

9/2/2015 11:55:00 AM

Completed By: **Ashley Gallegos**

9/2/2015 12:10:05 PM

Reviewed By:

Ja 09/02/15 @ 1221

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:
Adjusted? (2 or >12 unless noted)
Checked by: [Signature]

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

Gallup Refinery

Mailing Address:

92 GIANT CROSSING RD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

2015 SEMI-ANNUAL - PONDS

Project #: PO # 20825207

EP-2 THRU 12B

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.8°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY



4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107
www.hallenvironmental.com

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BCD	COD	M-COL	Air Bubbles (Y or N)
9/2/2015	0710	Aqueous	EP-2	MISC	MISC	-001	X	X	X	
9/2/2015	0745	Aqueous	EP-3	MISC	MISC	-002	X	X	X	
9/2/2015	0720	Aqueous	EP-4	MISC	MISC	-003	X	X	X	
9/2/2015	0730	Aqueous	EP-5	MISC	MISC	-004	X	X	X	
9/2/2015	0745	Aqueous	EP-6	MISC	MISC	-005	X	X	X	
9/2/2015	0820	Aqueous	EP-7	MISC	MISC	-006	X	X	X	
9/2/2015	0830	Aqueous	EP-8	MISC	MISC	-007	X	X	X	
9/2/2015	0840	Aqueous	EP-9	MISC	MISC	-008	X	X	X	
9/2/2015	0815	Aqueous	EP-11	MISC	MISC	-009	X	X	X	
9/2/2015	0735	Aqueous	EP-12A	MISC	MISC	-010	X	X	X	
9/2/2015	0805	Aqueous	EP-12B	MISC	MISC	-011	X	X	X	

Date: 9/2/2015 Time: 1155

Relinquished by: [Signature]

Date: 9/2/2015 Time: 1155

Relinquished by: [Signature]

Received by: [Signature] Date: 09/02/15 Time: 1155

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 23, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015-3rd Qtr-GWM-1

OrderNo.: 1509910

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/18/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509910

Date Reported: 9/23/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2015-3rd Qtr-GWM-1

Collection Date: 9/18/2015 9:45:00 AM

Lab ID: 1509910-001

Matrix: PRODUCT

Received Date: 9/18/2015 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
DRO BY 8015D							Analyst: KJH
Diesel Range Organics (DRO)	68	1.2		wt%	20	9/21/2015 2:03:14 PM	21396
Motor Oil Range Organics (MRO)	18	5.9		wt%	20	9/21/2015 2:03:14 PM	21396
Surr: DNOP	0	72.8-129	S	%REC	20	9/21/2015 2:03:14 PM	21396
GRO BY 8015D							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.5		wt%	1	9/22/2015 9:56:59 AM	21410
Surr: BFB	88.0	80-120		%REC	1	9/22/2015 9:56:59 AM	21410

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509910

23-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015-3rd Qtr-GWM-1

Sample ID	MB-21396		SampType:	MBLK		TestCode:	DRO by 8015D			
Client ID:	PBW		Batch ID:	21396		RunNo:	28995			
Prep Date:	9/21/2015		Analysis Date:	9/21/2015		SeqNo:	879731		Units: wt%	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	0.10								
Motor Oil Range Organics (MRO)	ND	0.50								
Surr: DNOP	0.094		0.1000		93.5	72.8	129			

Sample ID	LCSD-21396		SampType:	LCSD		TestCode:	DRO by 8015D			
Client ID:	LCSS02		Batch ID:	21396		RunNo:	28995			
Prep Date:	9/21/2015		Analysis Date:	9/21/2015		SeqNo:	879766		Units: wt%	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	0.41	0.10	0.5000	0	82.8	80	120	3.10	20	
Surr: DNOP	0.046		0.05000		92.7	72.8	129	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509910

23-Sep-15

Client: Western Refining Southwest, Gallup

Project: 2015-3rd Qtr-GWM-1

Sample ID	MB-21410		SampType: MBLK		TestCode: GRO by 8015D					
Client ID:	PBW		Batch ID: 21410		RunNo: 29020					
Prep Date:	9/21/2015		Analysis Date: 9/22/2015		SeqNo: 880756		Units: wt%			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	2.5								
Surr: BFB	880		1000		87.7	80	120			

Sample ID	LCS-21410		SampType: LCS		TestCode: GRO by 8015D					
Client ID:	LCSW		Batch ID: 21410		RunNo: 29020					
Prep Date:	9/21/2015		Analysis Date: 9/22/2015		SeqNo: 880757		Units: wt%			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	2.5	25.00	0	82.9	69.3	137			
Surr: BFB	970		1000		96.7	80	120			

Sample ID	LCSD-21410		SampType: LCSD		TestCode: GRO by 8015D					
Client ID:	LCSS02		Batch ID: 21410		RunNo: 29020					
Prep Date:	9/21/2015		Analysis Date: 9/22/2015		SeqNo: 880758		Units: wt%			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	2.5	25.00	0	85.0	69.3	137	2.48	20	
Surr: BFB	980		1000		98.0	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1509910**

RcptNo: **1**

Received by/date:

CS

09/18/15

Logged By: **Ashley Gallegos**

9/18/2015 4:15:00 PM

Ag

Completed By: **Ashley Gallegos**

9/19/2015 11:00:08 AM

Ag

Reviewed By:

Ja

09/21/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

of preserved
bottles checked
for pH:

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

(<2 or >12 unless noted)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.1	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

Standard ☒ Rush

Project Name:

2015 - 3rd Qtr - GWM-1

Project #:

PO #20825207

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.1-10CF = 5.1°C

Date Time Matrix Sample Request ID

Container Type and #

Preservative Type

HEAL No.

1509910

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VOAS

NONE

-001

NONE

2-40ML VO



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 19, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3RD Qtr - Outfalls

OrderNo.: 1510574

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/12/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1510574

Date Reported: 10/19/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OUTFALL 1

Project: 3RD Qtr - Outfalls

Collection Date: 10/12/2015 2:10:00 PM

Lab ID: 1510574-001

Matrix: AQUEOUS

Received Date: 10/12/2015 4:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	4300	250	*	mg/L	500	10/16/2015 11:29:07 AM	R29614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 3
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1510574

Date Reported: 10/19/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OUTFALL 1 @ VALVE

Project: 3RD Qtr - Outfalls

Collection Date: 10/12/2015 2:10:00 PM

Lab ID: 1510574-002

Matrix: AQUEOUS

Received Date: 10/12/2015 4:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	4300	250	*	mg/L	500	10/16/2015 11:41:31 AM	R29614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 3
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1510574

19-Oct-15

Client: Western Refining Southwest, Gallup

Project: 3RD Qtr - Outfalls

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R29614	RunNo:	29614					
Prep Date:		Analysis Date:	10/16/2015	SeqNo:	901551	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R29614	RunNo:	29614					
Prep Date:		Analysis Date:	10/16/2015	SeqNo:	901552	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1510574

RcptNo: 1

Received by/date: SA 10/12/15

Logged By: Lindsay Mangin 10/12/2015 4:40:00 PM

Completed By: Lindsay Mangin 10/13/2015 7:52:24 AM

Reviewed By: SA 10/13/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C? Yes ☐ No ☒ NA ☐
Approved by client.
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	8.2	Good	Yes			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

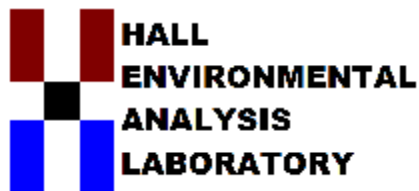
4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

If necessary, samples submitted to Halcyon Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 08, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4TH QUARTER

OrderNo.: 1511012

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 11/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 7:00:00 AM

Lab ID: 1511012-001

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: BCN			
Benzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Toluene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Ethylbenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Naphthalene	ND	2.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Acetone	18	10		µg/L	1	11/5/2015 4:11:23 PM	R30031
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Bromoform	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Bromomethane	ND	3.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
2-Butanone	ND	10		µg/L	1	11/5/2015 4:11:23 PM	R30031
Carbon disulfide	ND	10		µg/L	1	11/5/2015 4:11:23 PM	R30031
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Chloroethane	ND	2.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Chloroform	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Chloromethane	ND	3.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,1-Dichloroethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 4:11:23 PM	R30031

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 7:00:00 AM

Lab ID: 1511012-001

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
2-Hexanone	ND	10		µg/L	1	11/5/2015 4:11:23 PM	R30031
Isopropylbenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 4:11:23 PM	R30031
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
n-Propylbenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
sec-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Styrene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 4:11:23 PM	R30031
Xylenes, Total	ND	1.5		µg/L	1	11/5/2015 4:11:23 PM	R30031
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%REC	1	11/5/2015 4:11:23 PM	R30031
Surr: 4-Bromofluorobenzene	90.9	70-130		%REC	1	11/5/2015 4:11:23 PM	R30031
Surr: Dibromofluoromethane	89.7	70-130		%REC	1	11/5/2015 4:11:23 PM	R30031
Surr: Toluene-d8	98.6	70-130		%REC	1	11/5/2015 4:11:23 PM	R30031

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 8:45:00 AM

Lab ID: 1511012-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.017	0.0050	*	mg/L	5	11/18/2015 3:55:11 PM	C30317
Lead	ND	0.0025		mg/L	5	11/18/2015 3:55:11 PM	C30317
Selenium	0.034	0.010		mg/L	10	11/22/2015 4:03:07 PM	B30411
Uranium	0.015	0.0025		mg/L	5	11/18/2015 3:55:11 PM	C30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.6	0.50		mg/L	5	11/5/2015 9:37:53 PM	R30052
Chloride	1800	100		mg/L	200	11/14/2015 4:35:13 AM	R30257
Bromide	4.70	0.500		mg/L	5	11/17/2015 1:53:29 AM	R30282
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/5/2015 9:37:53 PM	R30052
Sulfate	18	2.5		mg/L	5	11/5/2015 9:37:53 PM	R30052
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 12:19:13 AM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.72	0.0020		mg/L	1	11/6/2015 4:32:29 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 4:32:29 PM	A30068
Calcium	170	5.0		mg/L	5	11/6/2015 4:34:46 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 4:32:29 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 4:32:29 PM	A30068
Iron	5.2	0.40	*	mg/L	20	11/11/2015 1:50:21 PM	A30158
Magnesium	32	1.0		mg/L	1	11/6/2015 4:32:29 PM	A30068
Manganese	1.8	0.010	*	mg/L	5	11/6/2015 4:34:46 PM	A30068
Potassium	5.1	1.0		mg/L	1	11/6/2015 4:32:29 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 1:48:30 PM	A30158
Sodium	1300	20		mg/L	20	11/11/2015 1:50:21 PM	A30158
Zinc	ND	0.010		mg/L	1	11/11/2015 1:48:30 PM	A30158
EPA METHOD 200.7: TOTAL METALS							Analyst: MED
Barium	0.78	0.010		mg/L	5	11/13/2015 2:57:15 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 4:49:01 PM	22148
Chromium	0.0079	0.0060		mg/L	1	11/12/2015 4:49:01 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:00:41 PM	22338
Iron	8.4	0.20	*	mg/L	10	11/13/2015 3:03:31 PM	22148
Manganese	1.8	0.010	*	mg/L	5	11/13/2015 2:57:15 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 4:49:01 PM	22148
Zinc	0.055	0.010		mg/L	1	11/12/2015 4:49:01 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.015	0.0050	*	mg/L	5	11/15/2015 5:09:38 PM	22148
Lead	0.015	0.0025		mg/L	5	11/15/2015 5:09:38 PM	22148
Selenium	0.022	0.0050		mg/L	5	11/15/2015 5:09:38 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 8:45:00 AM

Lab ID: 1511012-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.017	0.0025		mg/L	5	11/15/2015 5:09:38 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:40:14 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	7.1	1.0		mg/L	1	11/3/2015 7:45:52 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 7:45:52 PM	22136
Surr: DNOP	109	72-136		%REC	1	11/3/2015 7:45:52 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.80	0.25		mg/L	5	11/3/2015 1:20:27 PM	R29983
Surr: BFB	118	57.8-137		%REC	5	11/3/2015 1:20:27 PM	R29983
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Acenaphthylene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Aniline	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Anthracene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Azobenzene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Benz(a)anthracene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Benzo(a)pyrene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Benzo(b)fluoranthene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Benzo(g,h,i)perylene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Benzo(k)fluoranthene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Benzoic acid	ND	200	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Benzyl alcohol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Bis(2-chloroethoxy)methane	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Bis(2-chloroethyl)ether	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Bis(2-chloroisopropyl)ether	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Bis(2-ethylhexyl)phthalate	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
4-Bromophenyl phenyl ether	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Butyl benzyl phthalate	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Carbazole	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
4-Chloro-3-methylphenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
4-Chloroaniline	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2-Chloronaphthalene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2-Chlorophenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
4-Chlorophenyl phenyl ether	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Chrysene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Di-n-butyl phthalate	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 8:45:00 AM

Lab ID: 1511012-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Dibenz(a,h)anthracene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Dibenzofuran	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
1,2-Dichlorobenzene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
1,3-Dichlorobenzene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
1,4-Dichlorobenzene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
3,3'-Dichlorobenzidine	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Diethyl phthalate	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Dimethyl phthalate	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2,4-Dichlorophenol	ND	200	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2,4-Dimethylphenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
4,6-Dinitro-2-methylphenol	ND	200	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2,4-Dinitrophenol	ND	200	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2,4-Dinitrotoluene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2,6-Dinitrotoluene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Fluoranthene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Fluorene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Hexachlorobenzene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Hexachlorobutadiene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Hexachlorocyclopentadiene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Hexachloroethane	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Indeno(1,2,3-cd)pyrene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Isophorone	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
1-Methylnaphthalene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2-Methylnaphthalene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2-Methylphenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
3+4-Methylphenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
N-Nitrosodi-n-propylamine	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
N-Nitrosodimethylamine	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
N-Nitrosodiphenylamine	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Naphthalene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2-Nitroaniline	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
3-Nitroaniline	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
4-Nitroaniline	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Nitrobenzene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2-Nitrophenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
4-Nitrophenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Pentachlorophenol	ND	200	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Phenanthrene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 8:45:00 AM

Lab ID: 1511012-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Pyrene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Pyridine	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
1,2,4-Trichlorobenzene	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2,4,5-Trichlorophenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
2,4,6-Trichlorophenol	ND	100	D	µg/L	10	11/3/2015 6:41:46 PM	22139
Surr: 2-Fluorophenol	61.1	4.63-113	D	%REC	10	11/3/2015 6:41:46 PM	22139
Surr: Phenol-d5	57.2	4.13-124	D	%REC	10	11/3/2015 6:41:46 PM	22139
Surr: 2,4,6-Tribromophenol	102	5.14-132	D	%REC	10	11/3/2015 6:41:46 PM	22139
Surr: Nitrobenzene-d5	101	9.13-140	D	%REC	10	11/3/2015 6:41:46 PM	22139
Surr: 2-Fluorobiphenyl	109	10.8-132	D	%REC	10	11/3/2015 6:41:46 PM	22139
Surr: 4-Terphenyl-d14	78.8	12.9-107	D	%REC	10	11/3/2015 6:41:46 PM	22139
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	130	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Toluene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Ethylbenzene	16	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Methyl tert-butyl ether (MTBE)	260	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2,4-Trimethylbenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,3,5-Trimethylbenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2-Dichloroethane (EDC)	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2-Dibromoethane (EDB)	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Naphthalene	ND	20	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1-Methylnaphthalene	ND	40	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
2-Methylnaphthalene	ND	40	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Acetone	ND	100	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Bromobenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Bromodichloromethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Bromoform	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Bromomethane	ND	30	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
2-Butanone	ND	100	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Carbon disulfide	ND	100	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Carbon Tetrachloride	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Chlorobenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Chloroethane	ND	20	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Chloroform	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Chloromethane	ND	30	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
2-Chlorotoluene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
4-Chlorotoluene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
cis-1,2-DCE	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 8:45:00 AM

Lab ID: 1511012-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,3-Dichloropropene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2-Dibromo-3-chloropropane	ND	20	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Dibromochloromethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Dibromomethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2-Dichlorobenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,3-Dichlorobenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,4-Dichlorobenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Dichlorodifluoromethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,1-Dichloroethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,1-Dichloroethene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2-Dichloropropane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,3-Dichloropropane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
2,2-Dichloropropane	ND	20	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,1-Dichloropropene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Hexachlorobutadiene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
2-Hexanone	ND	100	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Isopropylbenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
4-Isopropyltoluene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
4-Methyl-2-pentanone	ND	100	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Methylene Chloride	ND	30	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
n-Butylbenzene	ND	30	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
n-Propylbenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
sec-Butylbenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Styrene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
tert-Butylbenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,1,1,2-Tetrachloroethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,1,2,2-Tetrachloroethane	ND	20	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Tetrachloroethene (PCE)	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
trans-1,2-DCE	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
trans-1,3-Dichloropropene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2,3-Trichlorobenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2,4-Trichlorobenzene	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,1,1-Trichloroethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,1,2-Trichloroethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Trichloroethene (TCE)	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Trichlorofluoromethane	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
1,2,3-Trichloropropane	ND	20	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Vinyl chloride	ND	10	D	µg/L	10	11/5/2015 4:41:46 PM	R30031
Xylenes, Total	ND	15	D	µg/L	10	11/5/2015 4:41:46 PM	R30031

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 8:45:00 AM

Lab ID: 1511012-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Surr: 1,2-Dichloroethane-d4	96.5	70-130	D	%REC	10	11/5/2015 4:41:46 PM	R30031
Surr: 4-Bromofluorobenzene	83.3	70-130	D	%REC	10	11/5/2015 4:41:46 PM	R30031
Surr: Dibromofluoromethane	90.8	70-130	D	%REC	10	11/5/2015 4:41:46 PM	R30031
Surr: Toluene-d8	98.9	70-130	D	%REC	10	11/5/2015 4:41:46 PM	R30031

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 10:50:00 AM

Lab ID: 1511012-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.010		mg/L	10	11/22/2015 4:06:11 PM	B30411
Lead	ND	0.0025		mg/L	5	11/18/2015 3:58:14 PM	C30317
Selenium	0.031	0.0050		mg/L	5	11/18/2015 3:58:14 PM	C30317
Uranium	0.022	0.0025		mg/L	5	11/18/2015 3:58:14 PM	C30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.26	0.10		mg/L	1	11/5/2015 10:02:42 PM	R30052
Chloride	2100	100		mg/L	200	11/14/2015 5:00:03 AM	R30257
Bromide	3.66	0.500		mg/L	5	11/17/2015 2:05:53 AM	R30282
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/5/2015 10:02:42 PM	R30052
Sulfate	130	10		mg/L	20	11/5/2015 10:15:07 PM	R30052
Nitrate+Nitrite as N	21	1.0	*	mg/L	5	11/6/2015 12:31:37 AM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.14	0.0020		mg/L	1	11/6/2015 4:36:30 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 4:36:30 PM	A30068
Calcium	91	1.0		mg/L	1	11/6/2015 4:36:30 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 4:36:30 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 4:36:30 PM	A30068
Iron	0.066	0.020		mg/L	1	11/11/2015 1:52:26 PM	A30158
Magnesium	12	1.0		mg/L	1	11/6/2015 4:36:30 PM	A30068
Manganese	0.0032	0.0020		mg/L	1	11/6/2015 4:36:30 PM	A30068
Potassium	7.0	1.0		mg/L	1	11/6/2015 4:36:30 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 1:52:26 PM	A30158
Sodium	1300	20		mg/L	20	11/11/2015 1:54:26 PM	A30158
Zinc	ND	0.010		mg/L	1	11/11/2015 1:52:26 PM	A30158
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.36	0.0020		mg/L	1	11/12/2015 5:00:59 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:00:59 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:00:59 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:06:14 PM	22338
Iron	6.0	0.20	*	mg/L	10	11/13/2015 3:05:38 PM	22148
Manganese	0.21	0.0020	*	mg/L	1	11/12/2015 5:00:59 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:00:59 PM	22148
Zinc	0.091	0.010		mg/L	1	11/12/2015 5:00:59 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0075	0.0050		mg/L	5	11/15/2015 5:14:46 PM	22148
Lead	0.0055	0.0025		mg/L	5	11/15/2015 5:14:46 PM	22148
Selenium	0.019	0.0050		mg/L	5	11/15/2015 5:14:46 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 10:50:00 AM

Lab ID: 1511012-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.023	0.0025		mg/L	5	11/15/2015 5:14:46 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:42:16 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/3/2015 8:49:59 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 8:49:59 PM	22136
Surr: DNOP	117	72-136		%REC	1	11/3/2015 8:49:59 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 2:33:54 PM	R29983
Surr: BFB	80.3	57.8-137		%REC	1	11/3/2015 2:33:54 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Toluene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Ethylbenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Naphthalene	ND	2.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Acetone	ND	10		µg/L	1	11/5/2015 5:30:50 AM	R30011
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Bromoform	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Bromomethane	ND	3.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
2-Butanone	ND	10		µg/L	1	11/5/2015 5:30:50 AM	R30011
Carbon disulfide	ND	10		µg/L	1	11/5/2015 5:30:50 AM	R30011
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Chloroethane	ND	2.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Chloroform	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Chloromethane	ND	3.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 10:50:00 AM

Lab ID: 1511012-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,1-Dichloroethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
2-Hexanone	ND	10		µg/L	1	11/5/2015 5:30:50 AM	R30011
Isopropylbenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 5:30:50 AM	R30011
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
n-Propylbenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
sec-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Styrene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 5:30:50 AM	R30011
Xylenes, Total	ND	1.5		µg/L	1	11/5/2015 5:30:50 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 10:50:00 AM

Lab ID: 1511012-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Surr: 1,2-Dichloroethane-d4	91.5	70-130		%REC	1	11/5/2015 5:30:50 AM	R30011
Surr: 4-Bromofluorobenzene	89.4	70-130		%REC	1	11/5/2015 5:30:50 AM	R30011
Surr: Dibromofluoromethane	85.4	70-130		%REC	1	11/5/2015 5:30:50 AM	R30011
Surr: Toluene-d8	101	70-130		%REC	1	11/5/2015 5:30:50 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 1:20:00 PM

Lab ID: 1511012-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	9.7	1.0		mg/L	1	11/3/2015 9:11:18 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 9:11:18 PM	22136
Surr: DNOP	117	72-136		%REC	1	11/3/2015 9:11:18 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	130	10		mg/L	200	11/3/2015 2:58:30 PM	R29983
Surr: BFB	85.9	57.8-137		%REC	200	11/3/2015 2:58:30 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	41000	1000		µg/L	1E	11/5/2015 5:12:08 PM	R30031
Toluene	4600	100		µg/L	100	11/5/2015 5:42:35 PM	R30031
Ethylbenzene	1000	100		µg/L	100	11/5/2015 5:42:35 PM	R30031
Methyl tert-butyl ether (MTBE)	1700	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2,4-Trimethylbenzene	180	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,3,5-Trimethylbenzene	31	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Naphthalene	140	20		µg/L	10	11/5/2015 6:01:12 AM	R30011
1-Methylnaphthalene	75	40		µg/L	10	11/5/2015 6:01:12 AM	R30011
2-Methylnaphthalene	ND	40		µg/L	10	11/5/2015 6:01:12 AM	R30011
Acetone	ND	100		µg/L	10	11/5/2015 6:01:12 AM	R30011
Bromobenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Bromodichloromethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Bromoform	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Bromomethane	ND	30		µg/L	10	11/5/2015 6:01:12 AM	R30011
2-Butanone	ND	100		µg/L	10	11/5/2015 6:01:12 AM	R30011
Carbon disulfide	ND	100		µg/L	10	11/5/2015 6:01:12 AM	R30011
Carbon Tetrachloride	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Chlorobenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Chloroethane	ND	20		µg/L	10	11/5/2015 6:01:12 AM	R30011
Chloroform	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Chloromethane	ND	30		µg/L	10	11/5/2015 6:01:12 AM	R30011
2-Chlorotoluene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
4-Chlorotoluene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
cis-1,2-DCE	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/5/2015 6:01:12 AM	R30011
Dibromochloromethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Dibromomethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 1:20:00 PM

Lab ID: 1511012-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
1,3-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,4-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Dichlorodifluoromethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,1-Dichloroethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,1-Dichloroethene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2-Dichloropropane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,3-Dichloropropane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
2,2-Dichloropropane	ND	20		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,1-Dichloropropene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Hexachlorobutadiene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
2-Hexanone	ND	100		µg/L	10	11/5/2015 6:01:12 AM	R30011
Isopropylbenzene	20	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
4-Isopropyltoluene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
4-Methyl-2-pentanone	ND	100		µg/L	10	11/5/2015 6:01:12 AM	R30011
Methylene Chloride	ND	30		µg/L	10	11/5/2015 6:01:12 AM	R30011
n-Butylbenzene	ND	30		µg/L	10	11/5/2015 6:01:12 AM	R30011
n-Propylbenzene	46	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
sec-Butylbenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Styrene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
tert-Butylbenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/5/2015 6:01:12 AM	R30011
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
trans-1,2-DCE	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,1,1-Trichloroethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,1,2-Trichloroethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Trichloroethene (TCE)	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Trichlorofluoromethane	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
1,2,3-Trichloropropane	ND	20		µg/L	10	11/5/2015 6:01:12 AM	R30011
Vinyl chloride	ND	10		µg/L	10	11/5/2015 6:01:12 AM	R30011
Xylenes, Total	2800	150		µg/L	100	11/5/2015 5:42:35 PM	R30031
Surr: 1,2-Dichloroethane-d4	83.0	70-130		%REC	10	11/5/2015 6:01:12 AM	R30011
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	11/5/2015 6:01:12 AM	R30011
Surr: Dibromofluoromethane	95.4	70-130		%REC	10	11/5/2015 6:01:12 AM	R30011
Surr: Toluene-d8	114	70-130		%REC	10	11/5/2015 6:01:12 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 1:58:00 PM

Lab ID: 1511012-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	12	1.0		mg/L	1	11/3/2015 9:32:31 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 9:32:31 PM	22136
Surr: DNOP	112	72-136		%REC	1	11/3/2015 9:32:31 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3.6	1.0		mg/L	20	11/3/2015 3:23:09 PM	R29983
Surr: BFB	93.4	57.8-137		%REC	20	11/3/2015 3:23:09 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	500	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Toluene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Ethylbenzene	130	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2,4-Trimethylbenzene	48	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,3,5-Trimethylbenzene	15	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Naphthalene	170	20		µg/L	10	11/5/2015 6:31:38 AM	R30011
1-Methylnaphthalene	110	40		µg/L	10	11/5/2015 6:31:38 AM	R30011
2-Methylnaphthalene	130	40		µg/L	10	11/5/2015 6:31:38 AM	R30011
Acetone	ND	100		µg/L	10	11/5/2015 6:31:38 AM	R30011
Bromobenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Bromodichloromethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Bromoform	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Bromomethane	ND	30		µg/L	10	11/5/2015 6:31:38 AM	R30011
2-Butanone	ND	100		µg/L	10	11/5/2015 6:31:38 AM	R30011
Carbon disulfide	ND	100		µg/L	10	11/5/2015 6:31:38 AM	R30011
Carbon Tetrachloride	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Chlorobenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Chloroethane	ND	20		µg/L	10	11/5/2015 6:31:38 AM	R30011
Chloroform	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Chloromethane	ND	30		µg/L	10	11/5/2015 6:31:38 AM	R30011
2-Chlorotoluene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
4-Chlorotoluene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
cis-1,2-DCE	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/5/2015 6:31:38 AM	R30011
Dibromochloromethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Dibromomethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 1:58:00 PM

Lab ID: 1511012-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
1,3-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,4-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Dichlorodifluoromethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,1-Dichloroethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,1-Dichloroethene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2-Dichloropropane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,3-Dichloropropane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
2,2-Dichloropropane	ND	20		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,1-Dichloropropene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Hexachlorobutadiene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
2-Hexanone	ND	100		µg/L	10	11/5/2015 6:31:38 AM	R30011
Isopropylbenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
4-Isopropyltoluene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
4-Methyl-2-pentanone	ND	100		µg/L	10	11/5/2015 6:31:38 AM	R30011
Methylene Chloride	ND	30		µg/L	10	11/5/2015 6:31:38 AM	R30011
n-Butylbenzene	ND	30		µg/L	10	11/5/2015 6:31:38 AM	R30011
n-Propylbenzene	27	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
sec-Butylbenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Styrene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
tert-Butylbenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/5/2015 6:31:38 AM	R30011
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
trans-1,2-DCE	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,1,1-Trichloroethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,1,2-Trichloroethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Trichloroethene (TCE)	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Trichlorofluoromethane	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
1,2,3-Trichloropropane	ND	20		µg/L	10	11/5/2015 6:31:38 AM	R30011
Vinyl chloride	ND	10		µg/L	10	11/5/2015 6:31:38 AM	R30011
Xylenes, Total	95	15		µg/L	10	11/5/2015 6:31:38 AM	R30011
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	10	11/5/2015 6:31:38 AM	R30011
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	10	11/5/2015 6:31:38 AM	R30011
Surr: Dibromofluoromethane	93.2	70-130		%REC	10	11/5/2015 6:31:38 AM	R30011
Surr: Toluene-d8	95.2	70-130		%REC	10	11/5/2015 6:31:38 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:15:00 PM

Lab ID: 1511012-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	340	10		mg/L	10	11/4/2015 9:16:59 AM	22136
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	11/4/2015 9:16:59 AM	22136
Surr: DNOP	0	72-136	S	%REC	10	11/4/2015 9:16:59 AM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.2	2.5		mg/L	50	11/3/2015 3:47:46 PM	R29983
Surr: BFB	97.0	57.8-137		%REC	50	11/3/2015 3:47:46 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	340	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Toluene	110	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Ethylbenzene	280	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Methyl tert-butyl ether (MTBE)	43	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2,4-Trimethylbenzene	90	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,3,5-Trimethylbenzene	100	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Naphthalene	680	200		µg/L	100	11/5/2015 6:43:15 PM	R30031
1-Methylnaphthalene	320	40		µg/L	10	11/5/2015 7:02:01 AM	R30011
2-Methylnaphthalene	410	40		µg/L	10	11/5/2015 7:02:01 AM	R30011
Acetone	ND	100		µg/L	10	11/5/2015 7:02:01 AM	R30011
Bromobenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Bromodichloromethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Bromoform	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Bromomethane	ND	30		µg/L	10	11/5/2015 7:02:01 AM	R30011
2-Butanone	ND	100		µg/L	10	11/5/2015 7:02:01 AM	R30011
Carbon disulfide	ND	100		µg/L	10	11/5/2015 7:02:01 AM	R30011
Carbon Tetrachloride	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Chlorobenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Chloroethane	ND	20		µg/L	10	11/5/2015 7:02:01 AM	R30011
Chloroform	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Chloromethane	ND	30		µg/L	10	11/5/2015 7:02:01 AM	R30011
2-Chlorotoluene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
4-Chlorotoluene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
cis-1,2-DCE	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/5/2015 7:02:01 AM	R30011
Dibromochloromethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Dibromomethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:15:00 PM

Lab ID: 1511012-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: BCN			
1,3-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,4-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Dichlorodifluoromethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,1-Dichloroethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,1-Dichloroethene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2-Dichloropropane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,3-Dichloropropane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
2,2-Dichloropropane	ND	20		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,1-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Hexachlorobutadiene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
2-Hexanone	ND	100		µg/L	10	11/5/2015 7:02:01 AM	R30011
Isopropylbenzene	25	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
4-Isopropyltoluene	10	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
4-Methyl-2-pentanone	ND	100		µg/L	10	11/5/2015 7:02:01 AM	R30011
Methylene Chloride	ND	30		µg/L	10	11/5/2015 7:02:01 AM	R30011
n-Butylbenzene	ND	30		µg/L	10	11/5/2015 7:02:01 AM	R30011
n-Propylbenzene	44	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
sec-Butylbenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Styrene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
tert-Butylbenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/5/2015 7:02:01 AM	R30011
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
trans-1,2-DCE	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,1,1-Trichloroethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,1,2-Trichloroethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Trichloroethene (TCE)	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Trichlorofluoromethane	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
1,2,3-Trichloropropane	ND	20		µg/L	10	11/5/2015 7:02:01 AM	R30011
Vinyl chloride	ND	10		µg/L	10	11/5/2015 7:02:01 AM	R30011
Xylenes, Total	850	15		µg/L	10	11/5/2015 7:02:01 AM	R30011
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	10	11/5/2015 7:02:01 AM	R30011
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	11/5/2015 7:02:01 AM	R30011
Surr: Dibromofluoromethane	90.2	70-130		%REC	10	11/5/2015 7:02:01 AM	R30011
Surr: Toluene-d8	112	70-130		%REC	10	11/5/2015 7:02:01 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: ELDU

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:30:00 PM

Lab ID: 1511012-007

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.0052	0.0010		mg/L	1	11/16/2015 4:49:47 PM	B30266
Lead	ND	0.0050		mg/L	10	11/22/2015 4:15:25 PM	B30411
Selenium	0.0029	0.0010		mg/L	1	11/18/2015 4:01:17 PM	C30317
Uranium	ND	0.0050		mg/L	10	12/2/2015 4:56:06 PM	A30584
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.21	0.0020		mg/L	1	11/6/2015 4:40:57 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 4:40:57 PM	A30068
Chromium	0.74	0.0060	*	mg/L	1	11/6/2015 4:40:57 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 4:40:57 PM	A30068
Iron	0.051	0.020		mg/L	1	11/11/2015 2:02:20 PM	A30158
Manganese	3.3	0.010	*	mg/L	5	11/6/2015 4:43:00 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:02:20 PM	A30158
Zinc	ND	0.010		mg/L	1	11/6/2015 4:40:57 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.21	0.0020		mg/L	1	11/12/2015 5:02:51 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:02:51 PM	22148
Chromium	0.72	0.0060	*	mg/L	1	11/12/2015 5:02:51 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:08:01 PM	22338
Iron	0.36	0.020	*	mg/L	1	11/12/2015 5:02:51 PM	22148
Manganese	3.2	0.010	*	mg/L	5	11/13/2015 3:07:45 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:02:51 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:02:51 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0046	0.0010		mg/L	1	11/10/2015 12:57:01 PM	22148
Lead	ND	0.00050		mg/L	1	11/10/2015 12:57:01 PM	22148
Selenium	ND	0.0050		mg/L	5	11/15/2015 5:25:03 PM	22148
Uranium	0.00073	0.00050		mg/L	1	11/10/2015 12:57:01 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:44:19 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	24	1.0		mg/L	1	11/3/2015 10:36:37 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 10:36:37 PM	22136
Surr: DNOP	121	72-136		%REC	1	11/3/2015 10:36:37 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5.5	2.5		mg/L	50	11/3/2015 4:12:23 PM	R29983
Surr: BFB	90.4	57.8-137		%REC	50	11/3/2015 4:12:23 PM	R29983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: ELDU

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:30:00 PM

Lab ID: 1511012-007

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Benzene	560	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Toluene	44	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Ethylbenzene	250	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Methyl tert-butyl ether (MTBE)	22	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2,4-Trimethylbenzene	310	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,3,5-Trimethylbenzene	220	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Naphthalene	170	20		µg/L	10	11/5/2015 7:32:23 AM	R30011
1-Methylnaphthalene	49	40		µg/L	10	11/5/2015 7:32:23 AM	R30011
2-Methylnaphthalene	69	40		µg/L	10	11/5/2015 7:32:23 AM	R30011
Acetone	ND	100		µg/L	10	11/5/2015 7:32:23 AM	R30011
Bromobenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Bromodichloromethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Bromoform	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Bromomethane	ND	30		µg/L	10	11/5/2015 7:32:23 AM	R30011
2-Butanone	ND	100		µg/L	10	11/5/2015 7:32:23 AM	R30011
Carbon disulfide	ND	100		µg/L	10	11/5/2015 7:32:23 AM	R30011
Carbon Tetrachloride	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Chlorobenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Chloroethane	ND	20		µg/L	10	11/5/2015 7:32:23 AM	R30011
Chloroform	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Chloromethane	ND	30		µg/L	10	11/5/2015 7:32:23 AM	R30011
2-Chlorotoluene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
4-Chlorotoluene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
cis-1,2-DCE	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/5/2015 7:32:23 AM	R30011
Dibromochloromethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Dibromomethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,3-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,4-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Dichlorodifluoromethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,1-Dichloroethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,1-Dichloroethene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2-Dichloropropane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,3-Dichloropropane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
2,2-Dichloropropane	ND	20		µg/L	10	11/5/2015 7:32:23 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: ELDU

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:30:00 PM

Lab ID: 1511012-007

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
1,1-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Hexachlorobutadiene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
2-Hexanone	ND	100		µg/L	10	11/5/2015 7:32:23 AM	R30011
Isopropylbenzene	26	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
4-Isopropyltoluene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
4-Methyl-2-pentanone	ND	100		µg/L	10	11/5/2015 7:32:23 AM	R30011
Methylene Chloride	ND	30		µg/L	10	11/5/2015 7:32:23 AM	R30011
n-Butylbenzene	ND	30		µg/L	10	11/5/2015 7:32:23 AM	R30011
n-Propylbenzene	36	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
sec-Butylbenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Styrene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
tert-Butylbenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/5/2015 7:32:23 AM	R30011
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
trans-1,2-DCE	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,1,1-Trichloroethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,1,2-Trichloroethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Trichloroethene (TCE)	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Trichlorofluoromethane	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
1,2,3-Trichloropropane	ND	20		µg/L	10	11/5/2015 7:32:23 AM	R30011
Vinyl chloride	ND	10		µg/L	10	11/5/2015 7:32:23 AM	R30011
Xylenes, Total	1100	15		µg/L	10	11/5/2015 7:32:23 AM	R30011
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	10	11/5/2015 7:32:23 AM	R30011
Surr: 4-Bromofluorobenzene	91.2	70-130		%REC	10	11/5/2015 7:32:23 AM	R30011
Surr: Dibromofluoromethane	91.0	70-130		%REC	10	11/5/2015 7:32:23 AM	R30011
Surr: Toluene-d8	110	70-130		%REC	10	11/5/2015 7:32:23 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WLDU

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:50:00 PM

Lab ID: 1511012-008

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.0056	0.0010		mg/L	1	11/18/2015 4:07:24 PM	C30317
Lead	ND	0.0050		mg/L	10	12/4/2015 6:40:20 PM	B30643
Selenium	0.0082	0.0010		mg/L	1	11/18/2015 4:07:24 PM	C30317
Uranium	ND	0.010		mg/L	20	12/2/2015 7:03:56 PM	D30584
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.60	0.0020		mg/L	1	11/6/2015 4:45:01 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 4:45:01 PM	A30068
Chromium	1.2	0.030	*	mg/L	5	11/6/2015 4:47:17 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 4:45:01 PM	A30068
Iron	0.086	0.020		mg/L	1	11/11/2015 2:04:27 PM	A30158
Manganese	0.79	0.0020	*	mg/L	1	11/6/2015 4:45:01 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:04:27 PM	A30158
Zinc	ND	0.010		mg/L	1	11/11/2015 2:04:27 PM	A30158
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.57	0.0020		mg/L	1	11/12/2015 5:04:50 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:04:50 PM	22148
Chromium	1.2	0.030	*	mg/L	5	11/13/2015 3:09:39 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:10:04 PM	22338
Iron	0.64	0.020	*	mg/L	1	11/12/2015 5:04:50 PM	22148
Manganese	0.73	0.0020	*	mg/L	1	11/12/2015 5:04:50 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:04:50 PM	22148
Zinc	0.027	0.010		mg/L	1	11/12/2015 5:04:50 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0050	0.0010		mg/L	1	11/10/2015 1:00:02 PM	22148
Lead	0.00055	0.00050		mg/L	1	11/10/2015 1:00:02 PM	22148
Selenium	ND	0.0050		mg/L	5	11/15/2015 5:30:12 PM	22148
Uranium	0.00058	0.00050		mg/L	1	11/10/2015 1:00:02 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:50:38 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	12	1.0		mg/L	1	11/3/2015 10:57:51 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 10:57:51 PM	22136
Surr: DNOP	124	72-136		%REC	1	11/3/2015 10:57:51 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3.0	1.0		mg/L	20	11/3/2015 4:36:57 PM	R29983
Surr: BFB	86.1	57.8-137		%REC	20	11/3/2015 4:36:57 PM	R29983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WLDU

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:50:00 PM

Lab ID: 1511012-008

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Benzene	500	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Toluene	190	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Ethylbenzene	30	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2,4-Trimethylbenzene	48	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Naphthalene	36	20		µg/L	10	11/5/2015 8:02:46 AM	R30011
1-Methylnaphthalene	ND	40		µg/L	10	11/5/2015 8:02:46 AM	R30011
2-Methylnaphthalene	47	40		µg/L	10	11/5/2015 8:02:46 AM	R30011
Acetone	180	100		µg/L	10	11/5/2015 8:02:46 AM	R30011
Bromobenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Bromodichloromethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Bromoform	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Bromomethane	ND	30		µg/L	10	11/5/2015 8:02:46 AM	R30011
2-Butanone	ND	100		µg/L	10	11/5/2015 8:02:46 AM	R30011
Carbon disulfide	ND	100		µg/L	10	11/5/2015 8:02:46 AM	R30011
Carbon Tetrachloride	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Chlorobenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Chloroethane	ND	20		µg/L	10	11/5/2015 8:02:46 AM	R30011
Chloroform	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Chloromethane	ND	30		µg/L	10	11/5/2015 8:02:46 AM	R30011
2-Chlorotoluene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
4-Chlorotoluene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
cis-1,2-DCE	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/5/2015 8:02:46 AM	R30011
Dibromochloromethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Dibromomethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,3-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,4-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Dichlorodifluoromethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,1-Dichloroethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,1-Dichloroethene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2-Dichloropropane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,3-Dichloropropane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
2,2-Dichloropropane	ND	20		µg/L	10	11/5/2015 8:02:46 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WLDU

Project: 2015 4TH QUARTER

Collection Date: 10/29/2015 2:50:00 PM

Lab ID: 1511012-008

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
1,1-Dichloropropene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Hexachlorobutadiene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
2-Hexanone	ND	100		µg/L	10	11/5/2015 8:02:46 AM	R30011
Isopropylbenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
4-Isopropyltoluene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
4-Methyl-2-pentanone	ND	100		µg/L	10	11/5/2015 8:02:46 AM	R30011
Methylene Chloride	ND	30		µg/L	10	11/5/2015 8:02:46 AM	R30011
n-Butylbenzene	ND	30		µg/L	10	11/5/2015 8:02:46 AM	R30011
n-Propylbenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
sec-Butylbenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Styrene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
tert-Butylbenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/5/2015 8:02:46 AM	R30011
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
trans-1,2-DCE	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,1,1-Trichloroethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,1,2-Trichloroethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Trichloroethene (TCE)	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Trichlorofluoromethane	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
1,2,3-Trichloropropane	ND	20		µg/L	10	11/5/2015 8:02:46 AM	R30011
Vinyl chloride	ND	10		µg/L	10	11/5/2015 8:02:46 AM	R30011
Xylenes, Total	290	15		µg/L	10	11/5/2015 8:02:46 AM	R30011
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	10	11/5/2015 8:02:46 AM	R30011
Surr: 4-Bromofluorobenzene	88.8	70-130		%REC	10	11/5/2015 8:02:46 AM	R30011
Surr: Dibromofluoromethane	97.7	70-130		%REC	10	11/5/2015 8:02:46 AM	R30011
Surr: Toluene-d8	111	70-130		%REC	10	11/5/2015 8:02:46 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 4TH QUARTER

Collection Date:

Lab ID: 1511012-009

Matrix: TRIP BLANK

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 5:01:28 PM	R29983
Surr: BFB	79.0	57.8-137		%REC	1	11/3/2015 5:01:28 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Toluene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Ethylbenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Naphthalene	ND	2.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Acetone	ND	10		µg/L	1	11/5/2015 2:28:41 AM	R30011
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Bromoform	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Bromomethane	ND	3.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
2-Butanone	ND	10		µg/L	1	11/5/2015 2:28:41 AM	R30011
Carbon disulfide	ND	10		µg/L	1	11/5/2015 2:28:41 AM	R30011
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Chloroethane	ND	2.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Chloroform	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Chloromethane	ND	3.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,1-Dichloroethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511012

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 4TH QUARTER

Collection Date:

Lab ID: 1511012-009

Matrix: TRIP BLANK

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
2-Hexanone	ND	10		µg/L	1	11/5/2015 2:28:41 AM	R30011
Isopropylbenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 2:28:41 AM	R30011
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
n-Propylbenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
sec-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Styrene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 2:28:41 AM	R30011
Xylenes, Total	ND	1.5		µg/L	1	11/5/2015 2:28:41 AM	R30011
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%REC	1	11/5/2015 2:28:41 AM	R30011
Surr: 4-Bromofluorobenzene	86.3	70-130		%REC	1	11/5/2015 2:28:41 AM	R30011
Surr: Dibromofluoromethane	86.4	70-130		%REC	1	11/5/2015 2:28:41 AM	R30011
Surr: Toluene-d8	98.4	70-130		%REC	1	11/5/2015 2:28:41 AM	R30011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

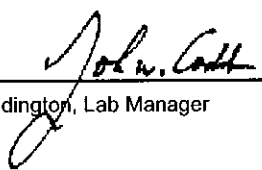
Batch #: 151103014
Project Name: 1511012

Analytical Results Report

Sample Number	151103014-001	Sampling Date	10/29/2015	Date/Time Received	11/3/2015 11:20 AM
Client Sample ID	1511012-002H / OAPIS-1	Sampling Time	8:45 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0684	mg/L	0.01	11/9/2015	MER	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 151103014
Project Name: 1511012

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.499	mg/L	0.5	99.8	90-110	11/9/2015	11/9/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
151030044-002	Cyanide	ND	0.463	mg/L	0.5	92.6	90-110	11/9/2015	11/9/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.464	mg/L	0.5	92.8	0.2	0-20	11/9/2015	11/9/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	11/9/2015	11/9/2015

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A30068			RunNo: 30068					
Prep Date:		Analysis Date: 11/6/2015			SeqNo: 916033		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30068		RunNo: 30068					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916034		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	113	50	150			
Cadmium	0.0023	0.0020	0.002000	0	117	50	150			
Calcium	ND	1.0	0.5000	0	102	50	150			
Chromium	ND	0.0060	0.006000	0	94.0	50	150			
Copper	ND	0.0060	0.006000	0	95.7	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			
Manganese	0.0020	0.0020	0.002000	0	103	50	150			
Potassium	ND	1.0	0.5000	0	109	50	150			
Zinc	ND	0.010	0.005000	0	87.2	50	150			

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A30068		RunNo: 30068					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916035		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	50	1.0	50.00	0	99.4	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.4	85	115			
Magnesium	49	1.0	50.00	0	97.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.1	85	115			
Potassium	49	1.0	50.00	0	98.9	85	115			
Zinc	0.49	0.010	0.5000	0	98.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A30158	RunNo:	30158					
Prep Date:		Analysis Date:	11/11/2015	SeqNo:	919076	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LLCS	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A30158	RunNo:	30158					
Prep Date:		Analysis Date:	11/11/2015	SeqNo:	919077	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.023	0.020	0.02000	0	113	50	150			
Silver	ND	0.0050	0.005000	0	94.8	50	150			
Sodium	ND	1.0	0.5000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	100	50	150			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A30158	RunNo:	30158					
Prep Date:		Analysis Date:	11/11/2015	SeqNo:	919078	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.43	0.020	0.5000	0	85.9	85	115			
Silver	0.096	0.0050	0.1000	0	95.7	85	115			
Sodium	49	1.0	50.00	0	98.3	85	115			
Zinc	0.47	0.010	0.5000	0	93.8	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	MB-22148		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914798		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-22148		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914799		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Iron	0.47	0.020	0.5000	0	93.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID	LLCS-22148		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914803		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	98.0	50	150			
Cadmium	0.0023	0.0020	0.002000	0	116	50	150			
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Iron	ND	0.020	0.02000	0	74.5	50	150			
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	ND	0.0050	0.005000	0	80.6	50	150			
Zinc	ND	0.010	0.005000	0	98.6	50	150			

Sample ID	1511012-002FMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OAPIS-1		Batch ID:	22148		RunNo:	30187			
Prep Date:	11/3/2015		Analysis Date:	11/12/2015		SeqNo:	920228		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	1511012-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OAPIS-1		Batch ID: 22148			RunNo: 30187				
Prep Date:	11/3/2015		Analysis Date: 11/12/2015			SeqNo: 920228		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0.007930	98.5	70	130			
Silver	0.11	0.0050	0.1000	0	106	70	130			
Zinc	0.53	0.010	0.5000	0.05495	94.8	70	130			

Sample ID	1511012-002FMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OAPIS-1		Batch ID: 22148			RunNo: 30187				
Prep Date:	11/3/2015		Analysis Date: 11/12/2015			SeqNo: 920229		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	103	70	130	1.45	20	
Chromium	0.51	0.0060	0.5000	0.007930	99.8	70	130	1.30	20	
Silver	0.11	0.0050	0.1000	0	106	70	130	0.556	20	
Zinc	0.53	0.010	0.5000	0.05495	96.0	70	130	1.10	20	

Sample ID	1511012-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OAPIS-1		Batch ID: 22148			RunNo: 30225				
Prep Date:	11/3/2015		Analysis Date: 11/13/2015			SeqNo: 921558		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.3	0.010	0.5000	0.7850	93.4	70	130			
Manganese	2.2	0.010	0.5000	1.782	85.2	70	130			

Sample ID	1511012-002FMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OAPIS-1		Batch ID: 22148			RunNo: 30225				
Prep Date:	11/3/2015		Analysis Date: 11/13/2015			SeqNo: 921559		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.2	0.010	0.5000	0.7850	89.9	70	130	1.41	20	
Manganese	2.2	0.010	0.5000	1.782	81.9	70	130	0.755	20	

Sample ID	MB-22338		SampType: MBLK			TestCode: EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID: 22338			RunNo: 30255				
Prep Date:	11/13/2015		Analysis Date: 11/16/2015			SeqNo: 922398		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	LCS-22338		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 22338		RunNo: 30255					
Prep Date:	11/13/2015		Analysis Date: 11/16/2015		SeqNo: 922399		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.3	85	115			

Sample ID	LLCS-22338		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 22338		RunNo: 30255					
Prep Date:	11/13/2015		Analysis Date: 11/16/2015		SeqNo: 922400		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0074	0.0060	0.006000	0	123	50	150			

Sample ID	1511012-002FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OAPIS-1		Batch ID: 22338		RunNo: 30284					
Prep Date:	11/13/2015		Analysis Date: 11/17/2015		SeqNo: 923741		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.54	0.0060	0.5000	0	108	70	130			

Sample ID	1511012-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OAPIS-1		Batch ID: 22338		RunNo: 30284					
Prep Date:	11/13/2015		Analysis Date: 11/17/2015		SeqNo: 923742		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.55	0.0060	0.5000	0	109	70	130	1.04	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B30266		RunNo: 30266					
Prep Date:			Analysis Date: 11/16/2015		SeqNo: 922731		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	90.1	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B30266		RunNo: 30266					
Prep Date:			Analysis Date: 11/16/2015		SeqNo: 922732		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.2	50	150			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	B30266		RunNo:	30266				
Prep Date:		Analysis Date:	11/16/2015		SeqNo:	922733	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.3	85	115			
Lead	0.012	0.00050	0.01250	0	93.3	85	115			
Selenium	0.024	0.0010	0.02500	0	94.5	85	115			
Uranium	0.012	0.00050	0.01250	0	96.0	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	92.0	50	150			
Lead	ND	0.00050	0.0005000	0	98.5	50	150			
Selenium	ND	0.0010	0.001000	0	87.9	50	150			
Uranium	ND	0.00050	0.0005000	0	96.0	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	MB		SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	PBW		Batch ID:	C30317		RunNo:	30317			
Prep Date:			Analysis Date:	11/18/2015		SeqNo:	926096	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	B30411		RunNo:	30411			
Prep Date:			Analysis Date:	11/22/2015		SeqNo:	928124	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.012	0.00050	0.01250	0	96.8	85	115			
Selenium	0.025	0.0010	0.02500	0	99.0	85	115			

Sample ID	LCSLL		SampType:	LCSLL		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	B30411		RunNo:	30411			
Prep Date:			Analysis Date:	11/22/2015		SeqNo:	928125	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00053	0.00050	0.0005000	0	106	50	150			
Selenium	0.0010	0.0010	0.001000	0	103	50	150			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	PBW		Batch ID:	B30411		RunNo:	30411			
Prep Date:			Analysis Date:	11/22/2015		SeqNo:	928126	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A30584		RunNo:	30584			
Prep Date:			Analysis Date:	12/2/2015		SeqNo:	933680	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	96.5	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933681	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050	0.0005000	0	96.1	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933682	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	D30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	934468	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.011	0.00050	0.01250	0	91.6	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	D30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	934469	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050	0.0005000	0	95.8	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	D30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	934470	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	B30643	RunNo:	30643					
Prep Date:		Analysis Date:	12/4/2015	SeqNo:	936148	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	97.1	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	B30643	RunNo:	30643					
Prep Date:		Analysis Date:	12/4/2015	SeqNo:	936150	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00056	0.00050	0.0005000	0	111	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	B30643	RunNo:	30643					
Prep Date:		Analysis Date:	12/4/2015	SeqNo:	936153	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	MB-22148		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	22148		RunNo:	30088			
Prep Date:	11/3/2015		Analysis Date:	11/6/2015		SeqNo:	916622	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22148		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	22148		RunNo:	30088			
Prep Date:	11/3/2015		Analysis Date:	11/6/2015		SeqNo:	916623	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	97.0	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	MSLLCS-22148		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	22148		RunNo:	30088			
Prep Date:	11/3/2015		Analysis Date:	11/6/2015		SeqNo:	916624	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	93.9	50	150			
Lead	0.00052	0.00050	0.0005000	0	103	50	150			
Selenium	ND	0.0010	0.001000	0	84.6	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Sample ID	1511012-003EMSL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	STP1-NW		Batch ID:	22148		RunNo:	30252			
Prep Date:	11/3/2015		Analysis Date:	11/15/2015		SeqNo:	922274	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.007459	85.4	70	130			
Lead	0.017	0.0025	0.01250	0.005531	93.4	70	130			
Selenium	0.037	0.0050	0.02500	0.01856	73.6	70	130			
Uranium	0.033	0.0025	0.01250	0.02296	79.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	MB-22340	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	22340	RunNo:	30233					
Prep Date:	11/13/2015	Analysis Date:	11/13/2015	SeqNo:	921296	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22340	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	22340	RunNo:	30233					
Prep Date:	11/13/2015	Analysis Date:	11/13/2015	SeqNo:	921306	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0062	0.00020	0.005000	0	124	80	120			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30052	RunNo:	30052					
Prep Date:		Analysis Date:	11/5/2015	SeqNo:	915655	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30052	RunNo:	30052					
Prep Date:		Analysis Date:	11/5/2015	SeqNo:	915656	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30257	RunNo:	30257					
Prep Date:		Analysis Date:	11/13/2015	SeqNo:	922453	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30257	RunNo:	30257					
Prep Date:		Analysis Date:	11/13/2015	SeqNo:	922454	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.0	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30282	RunNo:	30282					
Prep Date:		Analysis Date:	11/16/2015	SeqNo:	923469	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.100								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID: R30282			RunNo: 30282					
Prep Date:		Analysis Date: 11/16/2015			SeqNo: 923470		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.49	0.100	2.500	0	99.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	1511012-002CMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	OAPIS-1	Batch ID:	22136	RunNo:	29955					
Prep Date:	11/3/2015	Analysis Date:	11/3/2015	SeqNo:	913423	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	14	1.0	5.000	7.053	133	41.3	177			
Surr: DNOP	0.55		0.5000		111	72	136			

Sample ID	1511012-002CMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	OAPIS-1	Batch ID:	22136	RunNo:	29955					
Prep Date:	11/3/2015	Analysis Date:	11/3/2015	SeqNo:	913424	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	14	1.0	5.000	7.053	131	-94.6	317	0.529	22.1	
Surr: DNOP	0.55		0.5000		110	72	136	0	0	

Sample ID	MB-22136	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID:	22136	RunNo:	29955					
Prep Date:	11/3/2015	Analysis Date:	11/3/2015	SeqNo:	913425	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	72	136			

Sample ID	LCS-22136	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW	Batch ID:	22136	RunNo:	29955					
Prep Date:	11/3/2015	Analysis Date:	11/3/2015	SeqNo:	913426	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	52.4	154			
Surr: DNOP	0.53		0.5000		105	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	5ML RBB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R29983		RunNo: 29983					
Prep Date:			Analysis Date: 11/3/2015		SeqNo: 913309		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.5	57.8	137			

Sample ID	2.5UG GRO LCSB		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R29983		RunNo: 29983					
Prep Date:			Analysis Date: 11/3/2015		SeqNo: 913310		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.3	80	120			
Surr: BFB	23		20.00		116	57.8	137			

Sample ID	1511012-002BMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	OAPIS-1		Batch ID: R29983		RunNo: 29983					
Prep Date:			Analysis Date: 11/3/2015		SeqNo: 913312		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.2	0.25	2.500	0.7950	97.0	70	130			
Surr: BFB	120		100.0		120	57.8	137			

Sample ID	1511012-002BMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	OAPIS-1		Batch ID: R29983		RunNo: 29983					
Prep Date:			Analysis Date: 11/3/2015		SeqNo: 913313		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.2	0.25	2.500	0.7950	96.3	70	130	0.560	20	
Surr: BFB	120		100.0		119	57.8	137	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	100ng LCS		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R30011		RunNo: 30011					
Prep Date:			Analysis Date: 11/4/2015		SeqNo: 914148		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.3	70	130			
Toluene	20	1.0	20.00	0	99.1	70	130			
Chlorobenzene	19	1.0	20.00	0	96.6	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	83.2	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.1	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.3	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.0	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30011			RunNo: 30011					
Prep Date:		Analysis Date: 11/4/2015			SeqNo: 914149		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30011	RunNo:	30011					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914149	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30011			RunNo: 30011						
Prep Date:	Analysis Date: 11/4/2015			SeqNo: 914149		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.1	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.8	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID 100ng LCS	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R30031			RunNo: 30031						
Prep Date:	Analysis Date: 11/5/2015			SeqNo: 914880		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.9	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	19	1.0	20.00	0	95.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.0	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	8.5		10.00		85.1	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.4	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30031			RunNo: 30031						
Prep Date:	Analysis Date: 11/5/2015			SeqNo: 914881		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30031			RunNo: 30031					
Prep Date:		Analysis Date: 11/5/2015			SeqNo: 914881		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30031			RunNo: 30031						
Prep Date:	Analysis Date: 11/5/2015			SeqNo: 914881		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	8.4		10.00		84.2	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.7	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	mb-22139		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 22139		RunNo: 29984					
Prep Date:	11/3/2015		Analysis Date: 11/3/2015		SeqNo: 913362		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	mb-22139	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	22139	RunNo:	29984					
Prep Date:	11/3/2015	Analysis Date:	11/3/2015	SeqNo:	913362	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		63.5	4.63	113			
Surr: Phenol-d5	130		200.0		65.8	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		68.5	5.14	132			
Surr: Nitrobenzene-d5	70		100.0		69.6	9.13	140			
Surr: 2-Fluorobiphenyl	72		100.0		71.6	10.8	132			
Surr: 4-Terphenyl-d14	31		100.0		31.4	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	Ics-22139		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 22139		RunNo: 29984					
Prep Date:	11/3/2015		Analysis Date: 11/3/2015		SeqNo: 913363		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	89	10	100.0	0	89.5	40.2	107			
4-Chloro-3-methylphenol	180	10	200.0	0	89.0	48.2	107			
2-Chlorophenol	160	10	200.0	0	81.7	42.5	106			
1,4-Dichlorobenzene	78	10	100.0	0	77.8	31.6	111			
2,4-Dinitrotoluene	75	10	100.0	0	75.0	33.6	86.5			
N-Nitrosodi-n-propylamine	87	10	100.0	0	86.6	44	106			
4-Nitrophenol	180	10	200.0	0	89.6	25.5	109			
Pentachlorophenol	140	20	200.0	0	70.3	38.8	97.8			
Phenol	170	10	200.0	0	83.1	22.7	116			
Pyrene	81	10	100.0	0	81.1	29.3	138			
1,2,4-Trichlorobenzene	86	10	100.0	0	85.7	35.3	123			
Surr: 2-Fluorophenol	160		200.0		79.0	4.63	113			
Surr: Phenol-d5	170		200.0		83.5	4.13	124			
Surr: 2,4,6-Tribromophenol	180		200.0		88.8	5.14	132			
Surr: Nitrobenzene-d5	80		100.0		79.9	9.13	140			
Surr: 2-Fluorobiphenyl	91		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	39		100.0		39.2	12.9	107			

Sample ID	Icsd-22139		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 22139		RunNo: 29984					
Prep Date:	11/3/2015		Analysis Date: 11/3/2015		SeqNo: 913364		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	88	10	100.0	0	87.8	40.2	107	1.85	46.7	
4-Chloro-3-methylphenol	190	10	200.0	0	95.3	48.2	107	6.84	29.4	
2-Chlorophenol	170	10	200.0	0	85.6	42.5	106	4.66	38.7	
1,4-Dichlorobenzene	78	10	100.0	0	77.6	31.6	111	0.335	25.3	
2,4-Dinitrotoluene	75	10	100.0	0	74.6	33.6	86.5	0.588	35.6	
N-Nitrosodi-n-propylamine	89	10	100.0	0	89.0	44	106	2.73	30.2	
4-Nitrophenol	180	10	200.0	0	88.1	25.5	109	1.62	42.2	
Pentachlorophenol	130	20	200.0	0	65.5	38.8	97.8	7.07	35.5	
Phenol	160	10	200.0	0	81.7	22.7	116	1.72	32	
Pyrene	83	10	100.0	0	82.9	29.3	138	2.15	27.1	
1,2,4-Trichlorobenzene	94	10	100.0	0	94.1	35.3	123	9.39	43.3	
Surr: 2-Fluorophenol	150		200.0		75.0	4.63	113	0	0	
Surr: Phenol-d5	170		200.0		82.6	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.6	5.14	132	0	0	
Surr: Nitrobenzene-d5	88		100.0		87.6	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	85		100.0		84.8	10.8	132	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511012

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH QUARTER

Sample ID	lcscd-22139	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	22139	RunNo:	29984					
Prep Date:	11/3/2015	Analysis Date:	11/3/2015	SeqNo:	913364	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	38		100.0		37.8	12.9	107	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1511012

RcptNo: 1

Received by/date:

JA

11/02/15

Logged By:

Celina Sessa

11/2/2015 10:47:00 AM

Celina Sessa

Completed By:

Celina Sessa

11/2/2015 11:00:09 AM

Celina Sessa

Reviewed By:

AT 11/02/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

10 1

(<2 or >12 unless noted)

Adjusted?

NO

Checked by:

[Signature]

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 03, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 - 4TH Qtr OW/NAPIS WELLS

OrderNo.: 1511013

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 7:00:00 AM

Lab ID: 1511013-001

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
Benzene	2.0	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Toluene	1.8	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Ethylbenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Naphthalene	ND	2.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Acetone	19	10		µg/L	1	11/4/2015 6:11:32 PM	R30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
2-Butanone	ND	10		µg/L	1	11/4/2015 6:11:32 PM	R30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 6:11:32 PM	R30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 6:11:32 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 7:00:00 AM

Lab ID: 1511013-001

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 6:11:32 PM	R30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 6:11:32 PM	R30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Styrene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 6:11:32 PM	R30013
Xylenes, Total	ND	1.5		µg/L	1	11/4/2015 6:11:32 PM	R30013
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	11/4/2015 6:11:32 PM	R30013
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	11/4/2015 6:11:32 PM	R30013
Surr: Dibromofluoromethane	104	70-130		%REC	1	11/4/2015 6:11:32 PM	R30013
Surr: Toluene-d8	97.0	70-130		%REC	1	11/4/2015 6:11:32 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 9:15:00 AM

Lab ID: 1511013-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/18/2015 4:16:50 PM	C30317
Lead	0.0081	0.00050		mg/L	1	11/16/2015 4:55:54 PM	B30266
Selenium	0.0050	0.0010		mg/L	1	11/18/2015 4:13:30 PM	C30317
Uranium	0.043	0.0025	*	mg/L	5	11/18/2015 4:16:50 PM	C30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.25	0.10		mg/L	1	11/4/2015 2:18:43 PM	R30015
Chloride	71	10		mg/L	20	11/4/2015 2:31:08 PM	R30015
Bromide	0.26	0.10		mg/L	1	11/4/2015 2:18:43 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/4/2015 2:18:43 PM	R30015
Sulfate	160	10		mg/L	20	11/4/2015 2:31:08 PM	R30015
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/5/2015 10:27:31 PM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.083	0.0020		mg/L	1	11/6/2015 4:49:21 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 4:49:21 PM	A30068
Calcium	7.6	1.0		mg/L	1	11/6/2015 4:49:21 PM	A30068
Chromium	0.021	0.0060		mg/L	1	11/6/2015 4:49:21 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 4:49:21 PM	A30068
Iron	1.1	0.10	*	mg/L	5	11/11/2015 2:08:15 PM	A30158
Magnesium	1.3	1.0		mg/L	1	11/6/2015 4:49:21 PM	A30068
Manganese	0.11	0.0020	*	mg/L	1	11/6/2015 4:49:21 PM	A30068
Potassium	1.3	1.0		mg/L	1	11/6/2015 4:49:21 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:06:27 PM	A30158
Sodium	290	5.0		mg/L	5	11/6/2015 4:58:43 PM	A30068
Zinc	0.020	0.010		mg/L	1	11/11/2015 2:06:27 PM	A30158
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.18	0.0020		mg/L	1	11/12/2015 5:06:59 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:06:59 PM	22148
Chromium	0.056	0.0060		mg/L	1	11/12/2015 5:06:59 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:12:09 PM	22338
Iron	11	0.40	*	mg/L	20	11/13/2015 3:11:35 PM	22148
Manganese	0.42	0.0020	*	mg/L	1	11/12/2015 5:06:59 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:06:59 PM	22148
Zinc	0.060	0.010		mg/L	1	11/12/2015 5:06:59 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0038	0.0010		mg/L	1	11/10/2015 1:03:02 PM	22148
Lead	0.015	0.00050		mg/L	1	11/10/2015 1:03:02 PM	22148
Selenium	ND	0.0050		mg/L	5	11/15/2015 5:35:20 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 9:15:00 AM

Lab ID: 1511013-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.042	0.0025	*	mg/L	5	11/15/2015 5:35:20 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:52:42 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/3/2015 11:19:14 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 11:19:14 PM	22136
Surr: DNOP	114	72-136		%REC	1	11/3/2015 11:19:14 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.10	D	mg/L	2	11/3/2015 5:25:55 PM	R29983
Surr: BFB	80.3	57.8-137	D	%REC	2	11/3/2015 5:25:55 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	1.4	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Toluene	2.4	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Ethylbenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Methyl tert-butyl ether (MTBE)	1.6	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Naphthalene	ND	2.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Acetone	ND	10		µg/L	1	11/4/2015 6:40:21 PM	R30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
2-Butanone	ND	10		µg/L	1	11/4/2015 6:40:21 PM	R30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 6:40:21 PM	R30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 9:15:00 AM

Lab ID: 1511013-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 6:40:21 PM	R30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 6:40:21 PM	R30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Styrene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 6:40:21 PM	R30013
Xylenes, Total	2.2	1.5		µg/L	1	11/4/2015 6:40:21 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 9:15:00 AM

Lab ID: 1511013-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%REC	1	11/4/2015 6:40:21 PM	R30013
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	11/4/2015 6:40:21 PM	R30013
Surr: Dibromofluoromethane	108	70-130		%REC	1	11/4/2015 6:40:21 PM	R30013
Surr: Toluene-d8	96.8	70-130		%REC	1	11/4/2015 6:40:21 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 11:10:00 AM

Lab ID: 1511013-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/18/2015 4:26:03 PM	C30317
Lead	ND	0.0025		mg/L	5	11/18/2015 4:26:03 PM	C30317
Selenium	0.019	0.0050		mg/L	5	11/18/2015 4:26:03 PM	C30317
Uranium	0.061	0.0025	*	mg/L	5	11/18/2015 4:26:03 PM	C30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.10		mg/L	1	11/4/2015 2:43:32 PM	R30015
Chloride	1500	50		mg/L	100	11/14/2015 2:29:31 AM	A30251
Bromide	0.13	0.10		mg/L	1	11/4/2015 2:43:32 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/4/2015 2:43:32 PM	R30015
Sulfate	220	10		mg/L	20	11/4/2015 2:55:57 PM	R30015
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/5/2015 10:39:55 PM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.099	0.0020		mg/L	1	11/6/2015 5:00:35 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:00:35 PM	A30068
Calcium	180	5.0		mg/L	5	11/6/2015 5:02:33 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:00:35 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:00:35 PM	A30068
Iron	ND	0.020		mg/L	1	11/6/2015 5:00:35 PM	A30068
Magnesium	32	1.0		mg/L	1	11/6/2015 5:00:35 PM	A30068
Manganese	0.22	0.0020	*	mg/L	1	11/6/2015 5:00:35 PM	A30068
Potassium	2.4	1.0		mg/L	1	11/6/2015 5:00:35 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:10:25 PM	A30158
Sodium	880	10		mg/L	10	11/11/2015 2:12:22 PM	A30158
Zinc	ND	0.010		mg/L	1	11/6/2015 5:00:35 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.095	0.0020		mg/L	1	11/12/2015 5:08:45 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:08:45 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:08:45 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:14:00 PM	22338
Iron	ND	0.020		mg/L	1	11/12/2015 5:08:45 PM	22148
Manganese	0.22	0.0020	*	mg/L	1	11/12/2015 5:08:45 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:08:45 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:08:45 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/15/2015 5:40:29 PM	22148
Lead	ND	0.0025		mg/L	5	11/15/2015 5:40:29 PM	22148
Selenium	0.013	0.0050		mg/L	5	11/15/2015 5:40:29 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 11:10:00 AM

Lab ID: 1511013-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.061	0.0025	*	mg/L	5	11/15/2015 5:40:29 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:54:46 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/3/2015 11:40:28 PM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/3/2015 11:40:28 PM	22136
Surr: DNOP	122	72-136		%REC	1	11/3/2015 11:40:28 PM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 5:50:23 PM	R29983
Surr: BFB	87.3	57.8-137		%REC	1	11/3/2015 5:50:23 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Toluene	2.3	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Ethylbenzene	1.1	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Methyl tert-butyl ether (MTBE)	51	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2,4-Trimethylbenzene	1.6	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Naphthalene	ND	2.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Acetone	ND	10		µg/L	1	11/4/2015 7:09:06 PM	R30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
2-Butanone	ND	10		µg/L	1	11/4/2015 7:09:06 PM	R30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 7:09:06 PM	R30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 11:10:00 AM

Lab ID: 1511013-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 7:09:06 PM	R30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 7:09:06 PM	R30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Styrene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 7:09:06 PM	R30013
Xylenes, Total	4.2	1.5		µg/L	1	11/4/2015 7:09:06 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 11:10:00 AM

Lab ID: 1511013-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	11/4/2015 7:09:06 PM	R30013
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	11/4/2015 7:09:06 PM	R30013
Surr: Dibromofluoromethane	98.1	70-130		%REC	1	11/4/2015 7:09:06 PM	R30013
Surr: Toluene-d8	98.5	70-130		%REC	1	11/4/2015 7:09:06 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:06:00 PM

Lab ID: 1511013-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	0.0084	0.0050		mg/L	5	11/22/2015 4:21:31 PM	B30411
Lead	ND	0.00050		mg/L	1	11/18/2015 4:29:06 PM	C30317
Selenium	0.0097	0.0050		mg/L	5	11/22/2015 4:21:31 PM	B30411
Uranium	ND	0.00050		mg/L	1	11/18/2015 4:29:06 PM	C30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.7	0.10		mg/L	1	11/4/2015 3:08:21 PM	R30015
Chloride	320	10		mg/L	20	11/4/2015 3:20:46 PM	R30015
Bromide	1.2	0.10		mg/L	1	11/4/2015 3:08:21 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/4/2015 3:08:21 PM	R30015
Sulfate	13	0.50		mg/L	1	11/4/2015 3:08:21 PM	R30015
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/5/2015 10:52:20 PM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	1.6	0.010		mg/L	5	11/6/2015 5:06:21 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:04:32 PM	A30068
Calcium	95	1.0		mg/L	1	11/6/2015 5:04:32 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:04:32 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:04:32 PM	A30068
Iron	1.8	0.10	*	mg/L	5	11/11/2015 2:15:57 PM	A30158
Magnesium	17	1.0		mg/L	1	11/6/2015 5:04:32 PM	A30068
Manganese	1.2	0.010	*	mg/L	5	11/6/2015 5:06:21 PM	A30068
Potassium	ND	1.0		mg/L	1	11/6/2015 5:04:32 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:14:13 PM	A30158
Sodium	360	5.0		mg/L	5	11/11/2015 2:15:57 PM	A30158
Zinc	0.022	0.010		mg/L	1	11/11/2015 2:14:13 PM	A30158
EPA METHOD 200.7: TOTAL METALS							Analyst: MED
Barium	1.6	0.010		mg/L	5	11/13/2015 3:13:46 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:10:47 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:10:47 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:15:57 PM	22338
Iron	3.3	0.10	*	mg/L	5	11/13/2015 3:13:46 PM	22148
Manganese	1.2	0.010	*	mg/L	5	11/13/2015 3:13:46 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:10:47 PM	22148
Zinc	0.011	0.010		mg/L	1	11/12/2015 5:10:47 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0080	0.0010		mg/L	1	11/10/2015 1:09:03 PM	22148
Lead	0.0018	0.00050		mg/L	1	11/10/2015 1:09:03 PM	22148
Selenium	ND	0.010		mg/L	10	11/17/2015 1:17:27 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:06:00 PM

Lab ID: 1511013-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	ND	0.00050		mg/L	1	11/10/2015 1:09:03 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:56:51 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	11/4/2015 12:01:44 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 12:01:44 AM	22136
Surr: DNOP	127	72-136		%REC	1	11/4/2015 12:01:44 AM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.37	0.050		mg/L	1	11/3/2015 6:14:44 PM	R29983
Surr: BFB	131	57.8-137		%REC	1	11/3/2015 6:14:44 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	9.1	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Toluene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Ethylbenzene	2.1	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Methyl tert-butyl ether (MTBE)	230	10		µg/L	10	11/5/2015 2:45:51 PM	R30041
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Naphthalene	2.9	2.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1-Methylnaphthalene	6.1	4.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Acetone	ND	10		µg/L	1	11/4/2015 7:38:00 PM	R30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
2-Butanone	ND	10		µg/L	1	11/4/2015 7:38:00 PM	R30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 7:38:00 PM	R30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:06:00 PM

Lab ID: 1511013-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 7:38:00 PM	R30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 7:38:00 PM	R30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Styrene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 7:38:00 PM	R30013
Xylenes, Total	ND	1.5		µg/L	1	11/4/2015 7:38:00 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:06:00 PM

Lab ID: 1511013-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	11/4/2015 7:38:00 PM	R30013
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	1	11/4/2015 7:38:00 PM	R30013
Surr: Dibromofluoromethane	94.7	70-130		%REC	1	11/4/2015 7:38:00 PM	R30013
Surr: Toluene-d8	97.1	70-130		%REC	1	11/4/2015 7:38:00 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:05:00 PM

Lab ID: 1511013-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 4:30:42 PM	B30411
Lead	ND	0.00050		mg/L	1	11/18/2015 5:05:57 PM	C30317
Selenium	ND	0.010		mg/L	10	11/25/2015 6:29:04 PM	D30497
Uranium	0.012	0.00050		mg/L	1	11/18/2015 5:05:57 PM	C30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.1	0.10		mg/L	1	11/5/2015 7:33:49 PM	R30052
Chloride	120	10		mg/L	20	11/5/2015 8:11:03 PM	R30052
Bromide	1.3	0.10		mg/L	1	11/14/2015 2:41:56 AM	A30251
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/5/2015 7:33:49 PM	R30052
Sulfate	57	10		mg/L	20	11/5/2015 8:11:03 PM	R30052
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/5/2015 11:04:45 PM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.31	0.0020		mg/L	1	11/6/2015 5:08:23 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:08:23 PM	A30068
Calcium	69	1.0		mg/L	1	11/6/2015 5:08:23 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:08:23 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:08:23 PM	A30068
Iron	ND	0.020		mg/L	1	11/6/2015 5:08:23 PM	A30068
Magnesium	11	1.0		mg/L	1	11/6/2015 5:08:23 PM	A30068
Manganese	0.61	0.0020	*	mg/L	1	11/6/2015 5:08:23 PM	A30068
Potassium	ND	1.0		mg/L	1	11/6/2015 5:08:23 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:17:58 PM	A30158
Sodium	270	5.0		mg/L	5	11/6/2015 5:10:25 PM	A30068
Zinc	ND	0.010		mg/L	1	11/6/2015 5:08:23 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.31	0.0020		mg/L	1	11/12/2015 5:12:32 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:12:32 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:12:32 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:17:36 PM	22338
Iron	0.11	0.020		mg/L	1	11/12/2015 5:12:32 PM	22148
Manganese	1.7	0.010	*	mg/L	5	11/13/2015 3:24:39 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:12:32 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:12:32 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0035	0.0010		mg/L	1	11/10/2015 1:12:04 PM	22148
Lead	ND	0.00050		mg/L	1	11/10/2015 1:12:04 PM	22148
Selenium	ND	0.0050		mg/L	5	11/15/2015 5:50:46 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:05:00 PM

Lab ID: 1511013-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.013	0.00050		mg/L	1	11/10/2015 1:12:04 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:58:56 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/4/2015 12:22:58 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 12:22:58 AM	22136
Surr: DNOP	128	72-136		%REC	1	11/4/2015 12:22:58 AM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 6:39:17 PM	R29983
Surr: BFB	86.7	57.8-137		%REC	1	11/3/2015 6:39:17 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Toluene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Ethylbenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Methyl tert-butyl ether (MTBE)	11	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Naphthalene	ND	2.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Acetone	ND	10		µg/L	1	11/4/2015 8:06:48 PM	R30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
2-Butanone	ND	10		µg/L	1	11/4/2015 8:06:48 PM	R30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 8:06:48 PM	R30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:05:00 PM

Lab ID: 1511013-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 8:06:48 PM	R30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 8:06:48 PM	R30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Styrene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 8:06:48 PM	R30013
Xylenes, Total	ND	1.5		µg/L	1	11/4/2015 8:06:48 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:05:00 PM

Lab ID: 1511013-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	11/4/2015 8:06:48 PM	R30013
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	11/4/2015 8:06:48 PM	R30013
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	11/4/2015 8:06:48 PM	R30013
Surr: Toluene-d8	93.0	70-130		%REC	1	11/4/2015 8:06:48 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:09:00 PM

Lab ID: 1511013-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	11/25/2015 6:32:07 PM	D30497
Lead	ND	0.00050		mg/L	1	11/18/2015 5:09:00 PM	C30317
Selenium	ND	0.050		mg/L	50	11/25/2015 6:32:07 PM	D30497
Uranium	0.040	0.0050	*	mg/L	10	11/25/2015 6:35:10 PM	D30497
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.60	0.10		mg/L	1	11/5/2015 8:23:27 PM	R30052
Chloride	880	25		mg/L	50	11/14/2015 3:06:44 AM	A30251
Bromide	4.9	0.10		mg/L	1	11/14/2015 2:54:20 AM	A30251
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/5/2015 8:23:27 PM	R30052
Sulfate	420	10		mg/L	20	11/5/2015 8:35:51 PM	R30052
Nitrate+Nitrite as N	15	1.0	*	mg/L	5	11/5/2015 11:17:10 PM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.046	0.0020		mg/L	1	11/6/2015 5:12:31 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:12:31 PM	A30068
Calcium	41	1.0		mg/L	1	11/6/2015 5:12:31 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:12:31 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:12:31 PM	A30068
Iron	ND	0.020		mg/L	1	11/11/2015 2:19:55 PM	A30158
Magnesium	6.6	1.0		mg/L	1	11/6/2015 5:12:31 PM	A30068
Manganese	0.0081	0.0020		mg/L	1	11/6/2015 5:12:31 PM	A30068
Potassium	3.9	1.0		mg/L	1	11/6/2015 5:12:31 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:19:55 PM	A30158
Sodium	730	10		mg/L	10	11/11/2015 2:27:38 PM	A30158
Zinc	ND	0.010		mg/L	1	11/11/2015 2:19:55 PM	A30158
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.11	0.0020		mg/L	1	11/12/2015 5:14:43 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:14:43 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:14:43 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:25:17 PM	22338
Iron	1.6	0.10	*	mg/L	5	11/13/2015 3:26:35 PM	22148
Manganese	0.093	0.0020	*	mg/L	1	11/12/2015 5:14:43 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:14:43 PM	22148
Zinc	0.016	0.010		mg/L	1	11/12/2015 5:14:43 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.010		mg/L	10	11/17/2015 1:20:27 PM	22148
Lead	0.0019	0.00050		mg/L	1	11/10/2015 1:21:09 PM	22148
Selenium	0.018	0.0050		mg/L	5	11/15/2015 6:06:15 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:09:00 PM

Lab ID: 1511013-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.039	0.0025	*	mg/L	5	11/15/2015 6:06:15 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:01:02 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/4/2015 12:44:19 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 12:44:19 AM	22136
Surr: DNOP	127	72-136		%REC	1	11/4/2015 12:44:19 AM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 8:41:39 PM	R29983
Surr: BFB	80.0	57.8-137		%REC	1	11/3/2015 8:41:39 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Toluene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Ethylbenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Naphthalene	ND	2.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Acetone	ND	10		µg/L	1	11/4/2015 8:35:26 PM	R30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
2-Butanone	ND	10		µg/L	1	11/4/2015 8:35:26 PM	R30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 8:35:26 PM	R30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:09:00 PM

Lab ID: 1511013-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 8:35:26 PM	R30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 8:35:26 PM	R30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Styrene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 8:35:26 PM	R30013
Xylenes, Total	ND	1.5		µg/L	1	11/4/2015 8:35:26 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:09:00 PM

Lab ID: 1511013-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	91.5	70-130		%REC	1	11/4/2015 8:35:26 PM	R30013
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	11/4/2015 8:35:26 PM	R30013
Surr: Dibromofluoromethane	94.7	70-130		%REC	1	11/4/2015 8:35:26 PM	R30013
Surr: Toluene-d8	94.5	70-130		%REC	1	11/4/2015 8:35:26 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:40:00 PM

Lab ID: 1511013-007

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 4:36:49 PM	B30411
Lead	ND	0.00050		mg/L	1	11/18/2015 5:12:03 PM	C30317
Selenium	ND	0.010		mg/L	10	11/25/2015 6:38:14 PM	D30497
Uranium	0.013	0.00050		mg/L	1	11/18/2015 5:12:03 PM	C30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.52	0.10		mg/L	1	11/5/2015 8:48:15 PM	R30052
Chloride	85	10		mg/L	20	11/5/2015 9:00:39 PM	R30052
Bromide	1.5	0.10		mg/L	1	11/14/2015 3:19:09 AM	A30251
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/5/2015 8:48:15 PM	R30052
Sulfate	85	10		mg/L	20	11/5/2015 9:00:39 PM	R30052
Nitrate+Nitrite as N	6.9	1.0		mg/L	5	11/6/2015 12:06:48 AM	R30052
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.13	0.0020		mg/L	1	11/6/2015 5:17:03 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:17:03 PM	A30068
Calcium	96	1.0		mg/L	1	11/6/2015 5:17:03 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:17:03 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:17:03 PM	A30068
Iron	ND	0.020		mg/L	1	11/6/2015 5:17:03 PM	A30068
Magnesium	16	1.0		mg/L	1	11/6/2015 5:17:03 PM	A30068
Manganese	0.061	0.0020	*	mg/L	1	11/6/2015 5:17:03 PM	A30068
Potassium	ND	1.0		mg/L	1	11/6/2015 5:17:03 PM	A30068
Silver	ND	0.0050		mg/L	1	11/11/2015 2:29:38 PM	A30158
Sodium	330	5.0		mg/L	5	11/6/2015 5:26:56 PM	A30068
Zinc	ND	0.010		mg/L	1	11/6/2015 5:17:03 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.14	0.0020		mg/L	1	11/12/2015 5:23:06 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:23:06 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:23:06 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:27:28 PM	22338
Iron	0.59	0.020	*	mg/L	1	11/12/2015 5:23:06 PM	22148
Manganese	0.13	0.0020	*	mg/L	1	11/12/2015 5:23:06 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:23:06 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:23:06 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/15/2015 6:11:23 PM	22148
Lead	0.00081	0.00050		mg/L	1	11/10/2015 1:24:10 PM	22148
Selenium	0.0054	0.0050		mg/L	5	11/15/2015 6:11:23 PM	22148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:40:00 PM

Lab ID: 1511013-007

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.013	0.00050		mg/L	1	11/10/2015 1:24:10 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:03:08 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/4/2015 1:05:33 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 1:05:33 AM	22136
Surr: DNOP	126	72-136		%REC	1	11/4/2015 1:05:33 AM	22136
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 9:06:11 PM	R29983
Surr: BFB	78.5	57.8-137		%REC	1	11/3/2015 9:06:11 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Toluene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Ethylbenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Naphthalene	ND	2.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Acetone	ND	10		µg/L	1	11/4/2015 10:59:26 PM	A30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
2-Butanone	ND	10		µg/L	1	11/4/2015 10:59:26 PM	A30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 10:59:26 PM	A30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:40:00 PM

Lab ID: 1511013-007

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 10:59:26 PM	A30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 10:59:26 PM	A30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Styrene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 10:59:26 PM	A30013
Xylenes, Total	ND	1.5		µg/L	1	11/4/2015 10:59:26 PM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date: 10/28/2015 3:40:00 PM

Lab ID: 1511013-007

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%REC	1	11/4/2015 10:59:26 PM	A30013
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	1	11/4/2015 10:59:26 PM	A30013
Surr: Dibromofluoromethane	94.1	70-130		%REC	1	11/4/2015 10:59:26 PM	A30013
Surr: Toluene-d8	92.4	70-130		%REC	1	11/4/2015 10:59:26 PM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date:

Lab ID: 1511013-008

Matrix: TRIP BLANK

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 9:30:44 PM	R29983
Surr: BFB	78.5	57.8-137		%REC	1	11/3/2015 9:30:44 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Toluene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Ethylbenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Naphthalene	ND	2.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Acetone	ND	10		µg/L	1	11/4/2015 11:28:11 PM	R30013
Bromobenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Bromodichloromethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Bromoform	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Bromomethane	ND	3.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
2-Butanone	ND	10		µg/L	1	11/4/2015 11:28:11 PM	R30013
Carbon disulfide	ND	10		µg/L	1	11/4/2015 11:28:11 PM	R30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Chlorobenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Chloroethane	ND	2.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Chloroform	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Chloromethane	ND	3.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Dibromochloromethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Dibromomethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511013

Date Reported: 12/3/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Collection Date:

Lab ID: 1511013-008

Matrix: TRIP BLANK

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,2-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
2-Hexanone	ND	10		µg/L	1	11/4/2015 11:28:11 PM	R30013
Isopropylbenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/4/2015 11:28:11 PM	R30013
Methylene Chloride	ND	3.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
n-Butylbenzene	ND	3.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
n-Propylbenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Styrene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Vinyl chloride	ND	1.0		µg/L	1	11/4/2015 11:28:11 PM	R30013
Xylenes, Total	ND	1.5		µg/L	1	11/4/2015 11:28:11 PM	R30013
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	11/4/2015 11:28:11 PM	R30013
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	11/4/2015 11:28:11 PM	R30013
Surr: Dibromofluoromethane	90.5	70-130		%REC	1	11/4/2015 11:28:11 PM	R30013
Surr: Toluene-d8	93.6	70-130		%REC	1	11/4/2015 11:28:11 PM	R30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB-A	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	A30068	RunNo:	30068					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916033	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LLCS-A	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A30068	RunNo:	30068					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916034	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.0023	0.0020	0.002000	0	113	50	150			
Cadmium	0.0023	0.0020	0.002000	0	117	50	150			
Calcium	ND	1.0	0.5000	0	102	50	150			
Chromium	ND	0.0060	0.006000	0	94.0	50	150			
Copper	ND	0.0060	0.006000	0	95.7	50	150			
Iron	ND	0.020	0.02000	0	92.7	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			
Manganese	0.0020	0.0020	0.002000	0	103	50	150			
Potassium	ND	1.0	0.5000	0	109	50	150			
Sodium	ND	1.0	0.5000	0	95.8	50	150			
Zinc	ND	0.010	0.005000	0	87.2	50	150			

Sample ID	LCS-A	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A30068	RunNo:	30068					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916035	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	50	1.0	50.00	0	99.4	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.47	0.020	0.5000	0	94.7	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A30068		RunNo: 30068					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916035		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	49	1.0	50.00	0	97.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.1	85	115			
Potassium	49	1.0	50.00	0	98.9	85	115			
Sodium	46	1.0	50.00	0	91.5	85	115			
Zinc	0.49	0.010	0.5000	0	98.6	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A30158			RunNo: 30158					
Prep Date:		Analysis Date: 11/11/2015			SeqNo: 919076		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LLLCS	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID: A30158			RunNo: 30158					
Prep Date:		Analysis Date: 11/11/2015			SeqNo: 919077		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.023	0.020	0.02000	0	113	50	150			
Silver	ND	0.0050	0.005000	0	94.8	50	150			
Sodium	ND	1.0	0.5000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	100	50	150			

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A30158		RunNo: 30158					
Prep Date:			Analysis Date: 11/11/2015		SeqNo: 919078		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.43	0.020	0.5000	0	85.9	85	115			
Silver	0.096	0.0050	0.1000	0	95.7	85	115			
Sodium	49	1.0	50.00	0	98.3	85	115			
Zinc	0.47	0.010	0.5000	0	93.8	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB-22148		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914798		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-22148		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914799		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Iron	0.47	0.020	0.5000	0	93.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID	LLCS-22148		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914803		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	98.0	50	150			
Cadmium	0.0023	0.0020	0.002000	0	116	50	150			
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Iron	ND	0.020	0.02000	0	74.5	50	150			
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	ND	0.0050	0.005000	0	80.6	50	150			
Zinc	ND	0.010	0.005000	0	98.6	50	150			

Sample ID	MB-22338		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	22338		RunNo:	30255			
Prep Date:	11/13/2015		Analysis Date:	11/16/2015		SeqNo:	922398		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	LCS-22338		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 22338		RunNo: 30255					
Prep Date:	11/13/2015		Analysis Date: 11/16/2015		SeqNo: 922399		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.3	85	115			

Sample ID	LLCS-22338		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 22338		RunNo: 30255					
Prep Date:	11/13/2015		Analysis Date: 11/16/2015		SeqNo: 922400		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0074	0.0060	0.006000	0	123	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B30266		RunNo: 30266					
Prep Date:			Analysis Date: 11/16/2015		SeqNo: 922731		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	98.2	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B30266		RunNo: 30266					
Prep Date:			Analysis Date: 11/16/2015		SeqNo: 922732		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050	0.0005000	0	98.9	50	150			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	B30266		RunNo:	30266				
Prep Date:		Analysis Date:	11/16/2015		SeqNo:	922733		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								

Sample ID	1511013-004DMSDL				SampType:	MSD		TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	NAPIS-2		Batch ID:		C30317		RunNo:	30317			
Prep Date:			Analysis Date:		11/18/2015		SeqNo:	926035		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.012	0.00050	0.01250	.00003719	99.6	70	130	0.754	20		
Uranium	0.014	0.00050	0.01250	0.0002600	110	70	130	0.720	20		

Sample ID	1511013-004DMSLL			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	NAPIS-2		Batch ID:		C30317		RunNo:	30317			
Prep Date:			Analysis Date:		11/18/2015		SeqNo:	926036		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.013	0.00050	0.01250	.00003719	100	70	130				
Uranium	0.014	0.00050	0.01250	0.0002600	111	70	130				

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.3	85	115			
Lead	0.012	0.00050	0.01250	0	93.3	85	115			
Selenium	0.024	0.0010	0.02500	0	94.5	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	96.0	85	115			

Sample ID	LLCS			SampType:	LCSLL			TestCode: EPA 200.8: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	C30317			RunNo: 30317			
Prep Date:				Analysis Date:	11/18/2015			SeqNo:	926093 Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010	0.001000	0	92.0	50	150				
Lead	ND	0.00050	0.0005000	0	98.5	50	150				
Selenium	ND	0.0010	0.001000	0	87.9	50	150				
Uranium	ND	0.00050	0.0005000	0	96.0	50	150				

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: C30317			RunNo: 30317					
Prep Date:		Analysis Date: 11/18/2015			SeqNo: 926096		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	99.0	85	115			

Sample ID	LCSLL		SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: B30411			RunNo: 30411				
Prep Date:			Analysis Date: 11/22/2015			SeqNo: 928125		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Selenium	0.0010	0.0010	0.001000	0	103	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: B30411			RunNo: 30411					
Prep Date:		Analysis Date: 11/22/2015			SeqNo: 928126		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1511013-004DMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	NAPIS-2		Batch ID: B30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928133		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.14	0.0050	0.1250	0.008363	102	70	130			
Selenium	0.14	0.0050	0.1250	0.009725	102	70	130			

Sample ID	1511013-004DMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	NAPIS-2		Batch ID: B30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928134		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.008363	100	70	130	1.58	20	
Selenium	0.13	0.0050	0.1250	0.009725	100	70	130	1.59	20	

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: D30497			RunNo: 30497					
Prep Date:		Analysis Date: 11/25/2015			SeqNo: 931124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.6	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	LLLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: D30497			RunNo: 30497					
Prep Date:		Analysis Date: 11/25/2015			SeqNo: 931127		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00052	0.00050	0.0005000	0	103	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	D30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931130	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB-22148		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 22148		RunNo: 30088					
Prep Date:	11/3/2015		Analysis Date: 11/6/2015		SeqNo: 916622		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22148		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 22148		RunNo: 30088					
Prep Date:	11/3/2015		Analysis Date: 11/6/2015		SeqNo: 916623		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	97.0	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	MSLLCS-22148		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 22148		RunNo: 30088					
Prep Date:	11/3/2015		Analysis Date: 11/6/2015		SeqNo: 916624		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	93.9	50	150			
Lead	0.00052	0.00050	0.0005000	0	103	50	150			
Selenium	ND	0.0010	0.001000	0	84.6	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB-22340	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	22340	RunNo:	30233					
Prep Date:	11/13/2015	Analysis Date:	11/13/2015	SeqNo:	921296	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22340	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	22340	RunNo:	30233					
Prep Date:	11/13/2015	Analysis Date:	11/13/2015	SeqNo:	921306	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0062	0.00020	0.005000	0	124	80	120			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30015	RunNo:	30015					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914384	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30015	RunNo:	30015					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914385	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.1	90	110			
Chloride	4.8	0.50	5.000	0	96.8	90	110			
Bromide	2.5	0.10	2.500	0	98.5	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.6	90	110			
Sulfate	9.8	0.50	10.00	0	98.0	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30052	RunNo:	30052					
Prep Date:		Analysis Date:	11/5/2015	SeqNo:	915655	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30052	RunNo:	30052					
Prep Date:		Analysis Date:	11/5/2015	SeqNo:	915656	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	5.0	0.50	5.000	0	99.6	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	1511013-005FMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	KA-3		Batch ID: R30052		RunNo: 30052					
Prep Date:			Analysis Date: 11/5/2015		SeqNo: 915658		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.067	98.6	75.3	111			

Sample ID	1511013-005FMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	KA-3		Batch ID: R30052		RunNo: 30052					
Prep Date:			Analysis Date: 11/5/2015		SeqNo: 915659		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.067	102	75.3	111	1.17	20	

Sample ID	MB		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBW		Batch ID: A30251		RunNo: 30251					
Prep Date:			Analysis Date: 11/14/2015		SeqNo: 922191		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: A30251		RunNo: 30251					
Prep Date:			Analysis Date: 11/14/2015		SeqNo: 922192		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.5	90	110			
Bromide	2.6	0.10	2.500	0	103	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	MB-22136	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 22136			RunNo: 29955					
Prep Date:	11/3/2015	Analysis Date: 11/3/2015			SeqNo: 913425		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	72	136			

Sample ID	LCS-22136		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 22136		RunNo: 29955					
Prep Date:	11/3/2015		Analysis Date: 11/3/2015		SeqNo: 913426		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	52.4	154			
Surr: DNOP	0.53		0.5000		105	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	5ML RBB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R29983	RunNo:	29983					
Prep Date:		Analysis Date:	11/3/2015	SeqNo:	913309	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.5	57.8	137			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R29983	RunNo:	29983					
Prep Date:		Analysis Date:	11/3/2015	SeqNo:	913310	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.3	80	120			
Surr: BFB	23		20.00		116	57.8	137			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R30013		RunNo: 30013					
Prep Date:			Analysis Date: 11/4/2015		SeqNo: 914169		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	22	1.0	20.00	0	110	70	130			
Chlorobenzene	23	1.0	20.00	0	114	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	102	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.5	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID	100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: A30013			RunNo: 30013					
Prep Date:		Analysis Date: 11/4/2015			SeqNo: 914170		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	117	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	22	1.0	20.00	0	110	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	112	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	9.7		10.00		96.7	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30013			RunNo: 30013					
Prep Date:		Analysis Date: 11/4/2015			SeqNo: 914208		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30013			RunNo: 30013					
Prep Date:		Analysis Date: 11/4/2015			SeqNo: 914208	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30013	RunNo:	30013					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914208	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A30013	RunNo:	30013					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914210	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A30013	RunNo:	30013					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914210	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511013

03-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 - 4TH Qtr OW/NAPIS WELLS

Sample ID rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: A30013			RunNo: 30013						
Prep Date:	Analysis Date: 11/4/2015			SeqNo: 914210		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.3		10.00		93.2	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R30041			RunNo: 30041						
Prep Date:	Analysis Date: 11/5/2015			SeqNo: 915390		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.3	70	130			
Surr: Toluene-d8	8.9		10.00		89.0	70	130			

Sample ID rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30041			RunNo: 30041						
Prep Date:	Analysis Date: 11/5/2015			SeqNo: 915391		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	8.0		10.00		80.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.8	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1511013

RcptNo: 1

Received by/date: JA 11/02/15

Logged By: Celina Sessa 11/2/2015 10:47:00 AM

Completed By: Celina Sessa 11/2/2015 11:35:48 AM

Reviewed By: JA 11/02/15

Celina Sessa
Celina Sessa

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: 18

Adjusted? No

Checked by: *JA*

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 04, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4TH Quarter OW Wells

OrderNo.: 1511014

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 7:00:00 AM

Lab ID: 1511014-001

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Toluene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Ethylbenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Naphthalene	ND	2.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Acetone	14	10		µg/L	1	11/5/2015 5:13:01 AM	A30013
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Bromoform	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Bromomethane	ND	3.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
2-Butanone	ND	10		µg/L	1	11/5/2015 5:13:01 AM	A30013
Carbon disulfide	ND	10		µg/L	1	11/5/2015 5:13:01 AM	A30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Chloroethane	ND	2.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Chloroform	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Chloromethane	ND	3.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 5:13:01 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 7:00:00 AM

Lab ID: 1511014-001

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
2-Hexanone	ND	10		µg/L	1	11/5/2015 5:13:01 AM	A30013
Isopropylbenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 5:13:01 AM	A30013
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
n-Propylbenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Styrene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 5:13:01 AM	A30013
Xylenes, Total	ND	1.5		µg/L	1	11/5/2015 5:13:01 AM	A30013
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	11/5/2015 5:13:01 AM	A30013
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	11/5/2015 5:13:01 AM	A30013
Surr: Dibromofluoromethane	93.0	70-130		%REC	1	11/5/2015 5:13:01 AM	A30013
Surr: Toluene-d8	96.8	70-130		%REC	1	11/5/2015 5:13:01 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 9:05:00 AM

Lab ID: 1511014-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 4:55:12 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 5:15:07 PM	C30317
Selenium	0.0077	0.0050		mg/L	5	11/22/2015 4:55:12 PM	C30411
Uranium	0.045	0.0025	*	mg/L	5	12/2/2015 5:05:16 PM	A30584
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.10	0.0020		mg/L	1	11/6/2015 5:29:03 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:29:03 PM	A30068
Calcium	77	1.0		mg/L	1	11/6/2015 5:29:03 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:29:03 PM	A30068
Copper	0.0088	0.0060		mg/L	1	11/6/2015 5:29:03 PM	A30068
Iron	0.064	0.020		mg/L	1	11/11/2015 2:31:37 PM	A30158
Magnesium	17	1.0		mg/L	1	11/6/2015 5:29:03 PM	A30068
Manganese	0.041	0.0020		mg/L	1	11/6/2015 5:29:03 PM	A30068
Potassium	ND	1.0		mg/L	1	11/6/2015 5:29:03 PM	A30068
Silver	ND	0.0050		mg/L	1	11/6/2015 5:29:03 PM	A30068
Sodium	390	5.0		mg/L	5	11/6/2015 5:31:39 PM	A30068
Zinc	ND	0.010		mg/L	1	11/6/2015 5:29:03 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.097	0.0020		mg/L	1	11/12/2015 5:25:02 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:25:02 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:25:02 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:29:26 PM	22338
Iron	0.12	0.020		mg/L	1	11/12/2015 5:25:02 PM	22148
Manganese	0.041	0.0020		mg/L	1	11/12/2015 5:25:02 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:25:02 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:25:02 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/15/2015 6:16:31 PM	22148
Lead	ND	0.00050		mg/L	1	11/10/2015 1:27:10 PM	22148
Selenium	ND	0.0050		mg/L	5	11/15/2015 6:16:31 PM	22148
Uranium	0.047	0.0025	*	mg/L	5	11/15/2015 6:16:31 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:05:06 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/4/2015 1:26:49 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 1:26:49 AM	22136
Surr: DNOP	132	72-136		%REC	1	11/4/2015 1:26:49 AM	22136

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 9:05:00 AM

Lab ID: 1511014-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3.7	0.050		mg/L	1	11/3/2015 9:55:26 PM	R29983
Surr: BFB	81.4	57.8-137		%REC	1	11/3/2015 9:55:26 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Toluene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Ethylbenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Methyl tert-butyl ether (MTBE)	3500	50		µg/L	50	11/5/2015 3:14:37 PM	R30041
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Naphthalene	ND	10		µg/L	5	11/5/2015 5:41:47 AM	A30013
1-Methylnaphthalene	ND	20		µg/L	5	11/5/2015 5:41:47 AM	A30013
2-Methylnaphthalene	ND	20		µg/L	5	11/5/2015 5:41:47 AM	A30013
Acetone	ND	50		µg/L	5	11/5/2015 5:41:47 AM	A30013
Bromobenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Bromodichloromethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Bromoform	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Bromomethane	ND	15		µg/L	5	11/5/2015 5:41:47 AM	A30013
2-Butanone	ND	50		µg/L	5	11/5/2015 5:41:47 AM	A30013
Carbon disulfide	ND	50		µg/L	5	11/5/2015 5:41:47 AM	A30013
Carbon Tetrachloride	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Chlorobenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Chloroethane	ND	10		µg/L	5	11/5/2015 5:41:47 AM	A30013
Chloroform	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Chloromethane	ND	15		µg/L	5	11/5/2015 5:41:47 AM	A30013
2-Chlorotoluene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
4-Chlorotoluene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
cis-1,2-DCE	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/5/2015 5:41:47 AM	A30013
Dibromochloromethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Dibromomethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,1-Dichloroethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,1-Dichloroethene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 9:05:00 AM

Lab ID: 1511014-002

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,2-Dichloropropane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,3-Dichloropropane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
2,2-Dichloropropane	ND	10		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,1-Dichloropropene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Hexachlorobutadiene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
2-Hexanone	ND	50		µg/L	5	11/5/2015 5:41:47 AM	A30013
Isopropylbenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
4-Isopropyltoluene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
4-Methyl-2-pentanone	ND	50		µg/L	5	11/5/2015 5:41:47 AM	A30013
Methylene Chloride	ND	15		µg/L	5	11/5/2015 5:41:47 AM	A30013
n-Butylbenzene	ND	15		µg/L	5	11/5/2015 5:41:47 AM	A30013
n-Propylbenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
sec-Butylbenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Styrene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
tert-Butylbenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/5/2015 5:41:47 AM	A30013
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
trans-1,2-DCE	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Trichlorofluoromethane	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
1,2,3-Trichloropropane	ND	10		µg/L	5	11/5/2015 5:41:47 AM	A30013
Vinyl chloride	ND	5.0		µg/L	5	11/5/2015 5:41:47 AM	A30013
Xylenes, Total	ND	7.5		µg/L	5	11/5/2015 5:41:47 AM	A30013
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	5	11/5/2015 5:41:47 AM	A30013
Surr: 4-Bromofluorobenzene	105	70-130		%REC	5	11/5/2015 5:41:47 AM	A30013
Surr: Dibromofluoromethane	96.8	70-130		%REC	5	11/5/2015 5:41:47 AM	A30013
Surr: Toluene-d8	94.7	70-130		%REC	5	11/5/2015 5:41:47 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 10:10:00 AM

Lab ID: 1511014-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 4:58:16 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 5:18:10 PM	C30317
Selenium	ND	0.010		mg/L	10	11/25/2015 6:47:28 PM	D30497
Uranium	0.054	0.0050	*	mg/L	10	11/25/2015 6:47:28 PM	D30497
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.069	0.0020		mg/L	1	11/6/2015 5:34:11 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:34:11 PM	A30068
Calcium	62	1.0		mg/L	1	11/6/2015 5:34:11 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:34:11 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:34:11 PM	A30068
Iron	0.27	0.020		mg/L	1	11/11/2015 2:33:39 PM	A30158
Magnesium	13	1.0		mg/L	1	11/6/2015 5:34:11 PM	A30068
Manganese	0.32	0.0020	*	mg/L	1	11/6/2015 5:34:11 PM	A30068
Potassium	ND	1.0		mg/L	1	11/6/2015 5:34:11 PM	A30068
Silver	ND	0.0050		mg/L	1	11/6/2015 5:34:11 PM	A30068
Sodium	370	5.0		mg/L	5	11/6/2015 5:36:19 PM	A30068
Zinc	ND	0.010		mg/L	1	11/6/2015 5:34:11 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.066	0.0020		mg/L	1	11/12/2015 5:27:02 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:27:02 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:27:02 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:35:12 PM	22338
Iron	0.33	0.020	*	mg/L	1	11/12/2015 5:27:02 PM	22148
Manganese	0.30	0.0020	*	mg/L	1	11/12/2015 5:27:02 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:27:02 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:27:02 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/15/2015 6:21:40 PM	22148
Lead	ND	0.00050		mg/L	1	11/10/2015 1:30:11 PM	22148
Selenium	ND	0.0050		mg/L	5	11/15/2015 6:21:40 PM	22148
Uranium	0.051	0.0025	*	mg/L	5	11/15/2015 6:21:40 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:07:05 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/4/2015 1:48:06 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 1:48:06 AM	22136
Surr: DNOP	129	72-136		%REC	1	11/4/2015 1:48:06 AM	22136

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 10:10:00 AM

Lab ID: 1511014-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2.6	0.25		mg/L	5	11/3/2015 10:20:05 PM	R29983
Surr: BFB	79.0	57.8-137		%REC	5	11/3/2015 10:20:05 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Toluene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Ethylbenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Methyl tert-butyl ether (MTBE)	3100	50		µg/L	50	11/5/2015 3:43:27 PM	R30041
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Naphthalene	ND	10		µg/L	5	11/5/2015 6:10:33 AM	A30013
1-Methylnaphthalene	ND	20		µg/L	5	11/5/2015 6:10:33 AM	A30013
2-Methylnaphthalene	ND	20		µg/L	5	11/5/2015 6:10:33 AM	A30013
Acetone	ND	50		µg/L	5	11/5/2015 6:10:33 AM	A30013
Bromobenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Bromodichloromethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Bromoform	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Bromomethane	ND	15		µg/L	5	11/5/2015 6:10:33 AM	A30013
2-Butanone	ND	50		µg/L	5	11/5/2015 6:10:33 AM	A30013
Carbon disulfide	ND	50		µg/L	5	11/5/2015 6:10:33 AM	A30013
Carbon Tetrachloride	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Chlorobenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Chloroethane	ND	10		µg/L	5	11/5/2015 6:10:33 AM	A30013
Chloroform	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Chloromethane	ND	15		µg/L	5	11/5/2015 6:10:33 AM	A30013
2-Chlorotoluene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
4-Chlorotoluene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
cis-1,2-DCE	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/5/2015 6:10:33 AM	A30013
Dibromochloromethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Dibromomethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,1-Dichloroethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,1-Dichloroethene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 10:10:00 AM

Lab ID: 1511014-003

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,2-Dichloropropane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,3-Dichloropropane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
2,2-Dichloropropane	ND	10		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,1-Dichloropropene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Hexachlorobutadiene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
2-Hexanone	ND	50		µg/L	5	11/5/2015 6:10:33 AM	A30013
Isopropylbenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
4-Isopropyltoluene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
4-Methyl-2-pentanone	ND	50		µg/L	5	11/5/2015 6:10:33 AM	A30013
Methylene Chloride	ND	15		µg/L	5	11/5/2015 6:10:33 AM	A30013
n-Butylbenzene	ND	15		µg/L	5	11/5/2015 6:10:33 AM	A30013
n-Propylbenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
sec-Butylbenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Styrene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
tert-Butylbenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/5/2015 6:10:33 AM	A30013
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
trans-1,2-DCE	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Trichlorofluoromethane	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
1,2,3-Trichloropropane	ND	10		µg/L	5	11/5/2015 6:10:33 AM	A30013
Vinyl chloride	ND	5.0		µg/L	5	11/5/2015 6:10:33 AM	A30013
Xylenes, Total	ND	7.5		µg/L	5	11/5/2015 6:10:33 AM	A30013
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	5	11/5/2015 6:10:33 AM	A30013
Surr: 4-Bromofluorobenzene	103	70-130		%REC	5	11/5/2015 6:10:33 AM	A30013
Surr: Dibromofluoromethane	92.7	70-130		%REC	5	11/5/2015 6:10:33 AM	A30013
Surr: Toluene-d8	92.9	70-130		%REC	5	11/5/2015 6:10:33 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 11:03:00 AM

Lab ID: 1511014-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	0.011	0.0050	*	mg/L	5	11/22/2015 5:01:19 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 5:21:13 PM	C30317
Selenium	0.016	0.0050		mg/L	5	11/22/2015 5:01:19 PM	C30411
Uranium	0.0065	0.00050		mg/L	1	11/18/2015 5:21:13 PM	C30317
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	2.1	0.010	*	mg/L	5	11/6/2015 5:40:19 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:38:28 PM	A30068
Calcium	99	1.0		mg/L	1	11/6/2015 5:38:28 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:38:28 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:38:28 PM	A30068
Iron	4.7	0.20	*	mg/L	10	11/11/2015 2:39:34 PM	A30158
Magnesium	26	1.0		mg/L	1	11/6/2015 5:38:28 PM	A30068
Manganese	2.3	0.010	*	mg/L	5	11/6/2015 5:40:19 PM	A30068
Potassium	ND	1.0		mg/L	1	11/6/2015 5:38:28 PM	A30068
Silver	ND	0.0050		mg/L	1	11/6/2015 5:38:28 PM	A30068
Sodium	380	5.0		mg/L	5	11/6/2015 5:40:19 PM	A30068
Zinc	ND	0.010		mg/L	1	11/6/2015 5:38:28 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: MED
Barium	1.9	0.010		mg/L	5	11/13/2015 3:28:39 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:29:09 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:29:09 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:37:11 PM	22338
Iron	4.6	0.10	*	mg/L	5	11/13/2015 3:28:39 PM	22148
Manganese	2.1	0.010	*	mg/L	5	11/13/2015 3:28:39 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:29:09 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:29:09 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0094	0.0050		mg/L	5	11/15/2015 6:26:48 PM	22148
Lead	ND	0.00050		mg/L	1	11/10/2015 1:33:11 PM	22148
Selenium	ND	0.020		mg/L	20	11/20/2015 7:56:38 PM	22148
Uranium	0.0067	0.00050		mg/L	1	11/10/2015 1:33:11 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:09:05 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	4.1	1.0		mg/L	1	11/4/2015 2:09:32 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 2:09:32 AM	22136
Surr: DNOP	132	72-136		%REC	1	11/4/2015 2:09:32 AM	22136

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 11:03:00 AM

Lab ID: 1511014-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	16	1.0		mg/L	20	11/3/2015 10:44:42 PM	R29983
Surr: BFB	86.0	57.8-137		%REC	20	11/3/2015 10:44:42 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	6200	100		µg/L	100	11/5/2015 4:12:17 PM	R30041
Toluene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Ethylbenzene	150	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Methyl tert-butyl ether (MTBE)	570	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2,4-Trimethylbenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,3,5-Trimethylbenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Naphthalene	ND	40		µg/L	20	11/5/2015 6:39:16 AM	A30013
1-Methylnaphthalene	ND	80		µg/L	20	11/5/2015 6:39:16 AM	A30013
2-Methylnaphthalene	ND	80		µg/L	20	11/5/2015 6:39:16 AM	A30013
Acetone	ND	200		µg/L	20	11/5/2015 6:39:16 AM	A30013
Bromobenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Bromodichloromethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Bromoform	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Bromomethane	ND	60		µg/L	20	11/5/2015 6:39:16 AM	A30013
2-Butanone	ND	200		µg/L	20	11/5/2015 6:39:16 AM	A30013
Carbon disulfide	ND	200		µg/L	20	11/5/2015 6:39:16 AM	A30013
Carbon Tetrachloride	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Chlorobenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Chloroethane	ND	40		µg/L	20	11/5/2015 6:39:16 AM	A30013
Chloroform	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Chloromethane	ND	60		µg/L	20	11/5/2015 6:39:16 AM	A30013
2-Chlorotoluene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
4-Chlorotoluene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
cis-1,2-DCE	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
cis-1,3-Dichloropropene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	11/5/2015 6:39:16 AM	A30013
Dibromochloromethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Dibromomethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2-Dichlorobenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,3-Dichlorobenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,4-Dichlorobenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Dichlorodifluoromethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,1-Dichloroethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,1-Dichloroethene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 11:03:00 AM

Lab ID: 1511014-004

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,2-Dichloropropane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,3-Dichloropropane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
2,2-Dichloropropane	ND	40		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,1-Dichloropropene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Hexachlorobutadiene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
2-Hexanone	ND	200		µg/L	20	11/5/2015 6:39:16 AM	A30013
Isopropylbenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
4-Isopropyltoluene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
4-Methyl-2-pentanone	ND	200		µg/L	20	11/5/2015 6:39:16 AM	A30013
Methylene Chloride	ND	60		µg/L	20	11/5/2015 6:39:16 AM	A30013
n-Butylbenzene	ND	60		µg/L	20	11/5/2015 6:39:16 AM	A30013
n-Propylbenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
sec-Butylbenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Styrene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
tert-Butylbenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	11/5/2015 6:39:16 AM	A30013
Tetrachloroethene (PCE)	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
trans-1,2-DCE	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
trans-1,3-Dichloropropene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2,3-Trichlorobenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2,4-Trichlorobenzene	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,1,1-Trichloroethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,1,2-Trichloroethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Trichloroethene (TCE)	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Trichlorofluoromethane	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
1,2,3-Trichloropropane	ND	40		µg/L	20	11/5/2015 6:39:16 AM	A30013
Vinyl chloride	ND	20		µg/L	20	11/5/2015 6:39:16 AM	A30013
Xylenes, Total	ND	30		µg/L	20	11/5/2015 6:39:16 AM	A30013
Surr: 1,2-Dichloroethane-d4	87.9	70-130		%REC	20	11/5/2015 6:39:16 AM	A30013
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	20	11/5/2015 6:39:16 AM	A30013
Surr: Dibromofluoromethane	92.1	70-130		%REC	20	11/5/2015 6:39:16 AM	A30013
Surr: Toluene-d8	94.0	70-130		%REC	20	11/5/2015 6:39:16 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 1:50:00 PM

Lab ID: 1511014-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 5:04:22 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 5:24:17 PM	C30317
Selenium	ND	0.0050		mg/L	5	11/22/2015 5:04:22 PM	C30411
Uranium	0.016	0.0025		mg/L	5	12/2/2015 5:08:20 PM	A30584
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.021	0.0020		mg/L	1	11/6/2015 5:42:13 PM	A30068
Cadmium	ND	0.0020		mg/L	1	11/6/2015 5:42:13 PM	A30068
Calcium	9.7	1.0		mg/L	1	11/6/2015 5:42:13 PM	A30068
Chromium	ND	0.0060		mg/L	1	11/6/2015 5:42:13 PM	A30068
Copper	ND	0.0060		mg/L	1	11/6/2015 5:42:13 PM	A30068
Iron	ND	0.020		mg/L	1	11/6/2015 5:42:13 PM	A30068
Magnesium	1.4	1.0		mg/L	1	11/6/2015 5:42:13 PM	A30068
Manganese	0.023	0.0020		mg/L	1	11/6/2015 5:42:13 PM	A30068
Potassium	1.4	1.0		mg/L	1	11/6/2015 5:42:13 PM	A30068
Silver	ND	0.0050		mg/L	1	11/6/2015 5:42:13 PM	A30068
Sodium	270	5.0		mg/L	5	11/11/2015 2:41:36 PM	A30158
Zinc	ND	0.010		mg/L	1	11/6/2015 5:42:13 PM	A30068
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.020	0.0020		mg/L	1	11/12/2015 5:30:56 PM	22148
Cadmium	ND	0.0020		mg/L	1	11/12/2015 5:30:56 PM	22148
Chromium	ND	0.0060		mg/L	1	11/12/2015 5:30:56 PM	22148
Copper	ND	0.0060		mg/L	1	11/17/2015 1:38:50 PM	22338
Iron	ND	0.020		mg/L	1	11/12/2015 5:30:56 PM	22148
Manganese	0.021	0.0020		mg/L	1	11/12/2015 5:30:56 PM	22148
Silver	ND	0.0050		mg/L	1	11/12/2015 5:30:56 PM	22148
Zinc	ND	0.010		mg/L	1	11/12/2015 5:30:56 PM	22148
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0012	0.0010		mg/L	1	11/10/2015 1:36:12 PM	22148
Lead	ND	0.00050		mg/L	1	11/10/2015 1:36:12 PM	22148
Selenium	ND	0.0050		mg/L	5	11/15/2015 6:31:57 PM	22148
Uranium	0.017	0.00050		mg/L	1	11/10/2015 1:36:12 PM	22148
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:15:20 PM	22340
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/4/2015 2:30:47 AM	22136
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/4/2015 2:30:47 AM	22136
Surr: DNOP	134	72-136		%REC	1	11/4/2015 2:30:47 AM	22136

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 1:50:00 PM

Lab ID: 1511014-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 11:09:19 PM	R29983
Surr: BFB	79.8	57.8-137		%REC	1	11/3/2015 11:09:19 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Toluene	1.3	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Ethylbenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Methyl tert-butyl ether (MTBE)	35	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Naphthalene	ND	2.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Acetone	ND	10		µg/L	1	11/5/2015 7:07:59 AM	A30013
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Bromoform	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Bromomethane	ND	3.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
2-Butanone	ND	10		µg/L	1	11/5/2015 7:07:59 AM	A30013
Carbon disulfide	ND	10		µg/L	1	11/5/2015 7:07:59 AM	A30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Chloroethane	ND	2.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Chloroform	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Chloromethane	ND	3.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015 1:50:00 PM

Lab ID: 1511014-005

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
2-Hexanone	ND	10		µg/L	1	11/5/2015 7:07:59 AM	A30013
Isopropylbenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 7:07:59 AM	A30013
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
n-Propylbenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Styrene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 7:07:59 AM	A30013
Xylenes, Total	1.6	1.5		µg/L	1	11/5/2015 7:07:59 AM	A30013
Surr: 1,2-Dichloroethane-d4	86.6	70-130		%REC	1	11/5/2015 7:07:59 AM	A30013
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	1	11/5/2015 7:07:59 AM	A30013
Surr: Dibromofluoromethane	94.8	70-130		%REC	1	11/5/2015 7:07:59 AM	A30013
Surr: Toluene-d8	95.3	70-130		%REC	1	11/5/2015 7:07:59 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015

Lab ID: 1511014-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/3/2015 11:33:54 PM	R29983
Surr: BFB	77.9	57.8-137		%REC	1	11/3/2015 11:33:54 PM	R29983
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Toluene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Ethylbenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Naphthalene	ND	2.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Acetone	ND	10		µg/L	1	11/5/2015 7:36:42 AM	A30013
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Bromoform	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Bromomethane	ND	3.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
2-Butanone	ND	10		µg/L	1	11/5/2015 7:36:42 AM	A30013
Carbon disulfide	ND	10		µg/L	1	11/5/2015 7:36:42 AM	A30013
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Chloroethane	ND	2.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Chloroform	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Chloromethane	ND	3.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,1-Dichloroethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511014

Date Reported: 12/4/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 4TH Quarter OW Wells

Collection Date: 10/27/2015

Lab ID: 1511014-006

Matrix: AQUEOUS

Received Date: 11/2/2015 10:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
2-Hexanone	ND	10		µg/L	1	11/5/2015 7:36:42 AM	A30013
Isopropylbenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 7:36:42 AM	A30013
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
n-Propylbenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
sec-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Styrene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 7:36:42 AM	A30013
Xylenes, Total	ND	1.5		µg/L	1	11/5/2015 7:36:42 AM	A30013
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	11/5/2015 7:36:42 AM	A30013
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	11/5/2015 7:36:42 AM	A30013
Surr: Dibromofluoromethane	95.0	70-130		%REC	1	11/5/2015 7:36:42 AM	A30013
Surr: Toluene-d8	96.1	70-130		%REC	1	11/5/2015 7:36:42 AM	A30013

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	MB-A		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A30068		RunNo:	30068			
Prep Date:			Analysis Date:	11/6/2015		SeqNo:	916033		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LLCS-A		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A30068		RunNo:	30068			
Prep Date:			Analysis Date:	11/6/2015		SeqNo:	916034		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	113	50	150			
Cadmium	0.0023	0.0020	0.002000	0	117	50	150			
Calcium	ND	1.0	0.5000	0	102	50	150			
Chromium	ND	0.0060	0.006000	0	94.0	50	150			
Copper	ND	0.0060	0.006000	0	95.7	50	150			
Iron	ND	0.020	0.02000	0	92.7	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			
Manganese	0.0020	0.0020	0.002000	0	103	50	150			
Potassium	ND	1.0	0.5000	0	109	50	150			
Silver	ND	0.0050	0.005000	0	87.4	50	150			
Sodium	ND	1.0	0.5000	0	95.8	50	150			
Zinc	ND	0.010	0.005000	0	87.2	50	150			

Sample ID	LCS-A		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A30068		RunNo:	30068			
Prep Date:			Analysis Date:	11/6/2015		SeqNo:	916035		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	50	1.0	50.00	0	99.4	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID LCS-A	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: A30068			RunNo: 30068						
Prep Date:	Analysis Date: 11/6/2015			SeqNo: 916035		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.47	0.020	0.5000	0	94.7	85	115			
Magnesium	49	1.0	50.00	0	97.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.1	85	115			
Potassium	49	1.0	50.00	0	98.9	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	46	1.0	50.00	0	91.5	85	115			
Zinc	0.49	0.010	0.5000	0	98.6	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: A30158			RunNo: 30158						
Prep Date:	Analysis Date: 11/11/2015			SeqNo: 919076		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID LLLCS	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: A30158			RunNo: 30158						
Prep Date:	Analysis Date: 11/11/2015			SeqNo: 919077		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.023	0.020	0.02000	0	113	50	150			
Sodium	ND	1.0	0.5000	0	105	50	150			

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: A30158			RunNo: 30158						
Prep Date:	Analysis Date: 11/11/2015			SeqNo: 919078		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.43	0.020	0.5000	0	85.9	85	115			
Sodium	49	1.0	50.00	0	98.3	85	115			

Sample ID 1511014-003DMS	SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: OW-29	Batch ID: A30158			RunNo: 30158						
Prep Date:	Analysis Date: 11/11/2015			SeqNo: 919259		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.75	0.020	0.5000	0.2690	96.5	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	1511014-003DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	OW-29	Batch ID:	A30158	RunNo:	30158					
Prep Date:		Analysis Date:	11/11/2015	SeqNo:	919260	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.76	0.020	0.5000	0.2690	97.8	70	130	0.839	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	MB-22148		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914798		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-22148		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914799		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Iron	0.47	0.020	0.5000	0	93.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID	LLCS-22148		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	22148		RunNo:	30027			
Prep Date:	11/3/2015		Analysis Date:	11/5/2015		SeqNo:	914803		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	98.0	50	150			
Cadmium	0.0023	0.0020	0.002000	0	116	50	150			
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Iron	ND	0.020	0.02000	0	74.5	50	150			
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	ND	0.0050	0.005000	0	80.6	50	150			
Zinc	ND	0.010	0.005000	0	98.6	50	150			

Sample ID	1511014-005EMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-13		Batch ID:	22148		RunNo:	30187			
Prep Date:	11/3/2015		Analysis Date:	11/12/2015		SeqNo:	920246		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0.01987	100	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	1511014-005EMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OW-13		Batch ID: 22148			RunNo: 30187				
Prep Date:	11/3/2015		Analysis Date: 11/12/2015			SeqNo: 920246		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	101	70	130			
Chromium	0.50	0.0060	0.5000	0	99.8	70	130			
Iron	0.48	0.020	0.5000	0	95.7	70	130			
Manganese	0.51	0.0020	0.5000	0.02138	98.0	70	130			
Silver	0.10	0.0050	0.1000	0	104	70	130			
Zinc	0.49	0.010	0.5000	0	98.4	70	130			

Sample ID	1511014-005EMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	OW-13		Batch ID: 22148			RunNo: 30187				
Prep Date:	11/3/2015		Analysis Date: 11/12/2015			SeqNo: 920247		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.01987	103	70	130	2.47	20	
Cadmium	0.51	0.0020	0.5000	0	103	70	130	1.20	20	
Chromium	0.51	0.0060	0.5000	0	101	70	130	1.53	20	
Iron	0.51	0.020	0.5000	0	102	70	130	6.40	20	
Manganese	0.52	0.0020	0.5000	0.02138	100	70	130	2.07	20	
Silver	0.11	0.0050	0.1000	0	106	70	130	1.32	20	
Zinc	0.50	0.010	0.5000	0	99.6	70	130	1.24	20	

Sample ID	MB-22338		SampType: MBLK			TestCode: EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID: 22338			RunNo: 30255				
Prep Date:	11/13/2015		Analysis Date: 11/16/2015			SeqNo: 922398		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID	LCS-22338		SampType: LCS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID: 22338			RunNo: 30255				
Prep Date:	11/13/2015		Analysis Date: 11/16/2015			SeqNo: 922399		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.3	85	115			

Sample ID	LLLCS-22338		SampType: LCSLL			TestCode: EPA Method 200.7: Total Metals				
Client ID:	BatchQC		Batch ID: 22338			RunNo: 30255				
Prep Date:	11/13/2015		Analysis Date: 11/16/2015			SeqNo: 922400		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0074	0.0060	0.006000	0	123	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	1511014-002EMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	OW-30	Batch ID:	22338	RunNo:	30284					
Prep Date:	11/13/2015	Analysis Date:	11/17/2015	SeqNo:	923756	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.51	0.0060	0.5000	0	102	70	130			

Sample ID	1511014-002EMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	OW-30	Batch ID:	22338	RunNo:	30284					
Prep Date:	11/13/2015	Analysis Date:	11/17/2015	SeqNo:	923757	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.52	0.0060	0.5000	0	104	70	130	1.61	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	1511014-005DMSLL			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	OW-13		Batch ID:	C30317		RunNo:	30317				
Prep Date:			Analysis Date:	11/18/2015		SeqNo:	926044		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.012	0.00050	0.01250	0	98.8	70	130				

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	93.3	85	115			
Uranium	0.012	0.00050	0.01250	0	96.0	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050	0.0005000	0	98.5	50	150			
Uranium	ND	0.00050	0.0005000	0	96.0	50	150			

Sample ID	MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: C30317		RunNo: 30317						
Prep Date:		Analysis Date: 11/18/2015		SeqNo: 926096		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID	1511014-005DMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OW-13		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928142		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.001477	99.7	70	130			
Selenium	0.13	0.0050	0.1250	0.002610	101	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928161		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928161		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928162		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.8	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928163		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: D30497		RunNo: 30497					
Prep Date:			Analysis Date: 11/25/2015		SeqNo: 931124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D30497		RunNo: 30497					
Prep Date:			Analysis Date: 11/25/2015		SeqNo: 931127		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00052	0.00050	0.0005000	0	103	50	150			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: D30497		RunNo: 30497					
Prep Date:			Analysis Date: 11/25/2015		SeqNo: 931130		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	D30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931130	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933680	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	96.5	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933681	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050	0.0005000	0	96.1	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933682	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Sample ID	1511014-005DMSLL	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	OW-13	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	934442	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.074	0.0025	0.06250	0.01586	93.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	MB-22148		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 22148		RunNo: 30088					
Prep Date:	11/3/2015		Analysis Date: 11/6/2015		SeqNo: 916622		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22148		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 22148		RunNo: 30088					
Prep Date:	11/3/2015		Analysis Date: 11/6/2015		SeqNo: 916623		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	97.0	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	MSLL LCS-22148		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 22148		RunNo: 30088					
Prep Date:	11/3/2015		Analysis Date: 11/6/2015		SeqNo: 916624		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	93.9	50	150			
Lead	0.00052	0.00050	0.0005000	0	103	50	150			
Selenium	ND	0.0010	0.001000	0	84.6	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	MB-22340	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	22340	RunNo:	30233					
Prep Date:	11/13/2015	Analysis Date:	11/13/2015	SeqNo:	921296	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22340	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	22340	RunNo:	30233					
Prep Date:	11/13/2015	Analysis Date:	11/13/2015	SeqNo:	921306	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0062	0.00020	0.005000	0	124	80	120			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	MB-22136	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range						
Client ID:	PBW	Batch ID: 22136		RunNo: 29955						
Prep Date:	11/3/2015	Analysis Date: 11/3/2015		SeqNo: 913425			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	72	136			

Sample ID	LCS-22136		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 22136		RunNo: 29955					
Prep Date:	11/3/2015		Analysis Date: 11/3/2015		SeqNo: 913426		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	52.4	154			
Surr: DNOP	0.53		0.5000		105	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	5ML RBB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R29983			RunNo: 29983					
Prep Date:		Analysis Date: 11/3/2015			SeqNo: 913309		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.5	57.8	137			

Sample ID	2.5UG GRO LCSB		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R29983		RunNo: 29983					
Prep Date:			Analysis Date: 11/3/2015		SeqNo: 913310		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.3	80	120			
Surr: BFB	23		20.00		116	57.8	137			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	100ng lcs2		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: A30013		RunNo: 30013					
Prep Date:			Analysis Date: 11/4/2015		SeqNo: 914170		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	117	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	22	1.0	20.00	0	110	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	112	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	9.7		10.00		96.7	70	130			

Sample ID	rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: A30013			RunNo: 30013					
Prep Date:		Analysis Date: 11/4/2015			SeqNo: 914210		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A30013	RunNo:	30013					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914210	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511014

04-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4TH Quarter OW Wells

Sample ID rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: A30013			RunNo: 30013						
Prep Date:	Analysis Date: 11/4/2015			SeqNo: 914210		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.3		10.00		93.2	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R30041			RunNo: 30041						
Prep Date:	Analysis Date: 11/5/2015			SeqNo: 915390		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.3	70	130			
Surr: Toluene-d8	8.9		10.00		89.0	70	130			

Sample ID rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30041			RunNo: 30041						
Prep Date:	Analysis Date: 11/5/2015			SeqNo: 915391		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	8.0		10.00		80.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.8	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1511014

RcptNo: 1

Received by/date: JA 11/02/15

Logged By: Celina Sessa 11/2/2015 10:47:00 AM

Completed By: Celina Sessa 11/2/2015 11:59:30 AM

Reviewed By: [Signature] 11/02/15

Celina Sessa

Celina Sessa

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 8
(≤ 2 or >12 unless noted)
Adjusted? 1/0
Checked by: JA

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 08, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4th QTR MKTF Wells

OrderNo.: 1511106

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 11 sample(s) on 11/3/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:50:00 AM

Lab ID: 1511106-001

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.0031	0.0010		mg/L	1	11/18/2015 6:31:09 PM	D30317
Lead	0.0053	0.00050		mg/L	1	11/18/2015 6:31:09 PM	D30317
Selenium	ND	0.010		mg/L	10	11/25/2015 6:59:41 PM	D30497
Uranium	0.0012	0.00050		mg/L	1	11/18/2015 6:31:09 PM	D30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.61	0.10		mg/L	1	11/4/2015 8:06:07 PM	R30015
Chloride	160	10		mg/L	20	11/4/2015 8:18:32 PM	R30015
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/4/2015 8:06:07 PM	R30015
Bromide	0.64	0.10		mg/L	1	11/4/2015 8:06:07 PM	R30015
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/4/2015 8:06:07 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/4/2015 8:06:07 PM	R30015
Sulfate	ND	0.50		mg/L	1	11/4/2015 8:06:07 PM	R30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	2.5	0.010	*	mg/L	5	11/18/2015 4:00:57 PM	A30311
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:29:23 PM	A30284
Calcium	78	1.0		mg/L	1	11/17/2015 4:29:23 PM	A30284
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:29:23 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 3:59:18 PM	A30311
Iron	4.8	0.10	*	mg/L	5	11/18/2015 4:00:57 PM	A30311
Magnesium	20	1.0		mg/L	1	11/17/2015 4:29:23 PM	A30284
Manganese	1.9	0.010	*	mg/L	5	11/18/2015 4:00:57 PM	A30311
Potassium	1.0	1.0		mg/L	1	11/17/2015 4:29:23 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:29:23 PM	A30284
Sodium	260	5.0		mg/L	5	11/18/2015 4:00:57 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 3:59:18 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	12	0.040	*	mg/L	20	11/17/2015 1:55:22 PM	22252
Cadmium	ND	0.0020		mg/L	1	11/17/2015 1:42:51 PM	22252
Chromium	0.046	0.0060		mg/L	1	11/17/2015 1:42:51 PM	22252
Copper	0.064	0.0060		mg/L	1	11/17/2015 1:42:51 PM	22252
Iron	58	2.0	*	mg/L	100	11/17/2015 1:57:11 PM	22252
Manganese	11	0.040	*	mg/L	20	11/17/2015 1:55:22 PM	22252
Silver	ND	0.0050		mg/L	1	11/18/2015 12:29:49 PM	22252
Zinc	0.19	0.010		mg/L	1	11/17/2015 1:42:51 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0088	0.0010		mg/L	1	11/15/2015 7:02:53 PM	22252
Lead	0.14	0.0050	*	mg/L	10	11/17/2015 1:32:30 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:50:00 AM

Lab ID: 1511106-001

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	ND	0.010		mg/L	10	11/17/2015 1:32:30 PM	22252
Uranium	0.015	0.00050		mg/L	1	11/15/2015 7:02:53 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.0010		mg/L	5	11/17/2015 1:28:40 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	2.5	1.0		mg/L	1	11/6/2015 10:36:09 AM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 10:36:09 AM	22175
Surr: DNOP	117	72-136		%REC	1	11/6/2015 10:36:09 AM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1.3	0.25		mg/L	5	11/4/2015 11:11:03 AM	R30006
Surr: BFB	107	57.8-137		%REC	5	11/4/2015 11:11:03 AM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Aniline	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 5:24:14 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Carbazole	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:50:00 AM

Lab ID: 1511106-001

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 5:24:14 PM	22200
2,4-Dimethylphenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 5:24:14 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 5:24:14 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
1-Methylnaphthalene	79	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2-Methylnaphthalene	17	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2-Methylphenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
3+4-Methylphenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Naphthalene	23	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 5:24:14 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:50:00 AM

Lab ID: 1511106-001

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Phenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 5:24:14 PM	22200
Surr: 2-Fluorophenol	43.7	4.63-113		%REC	1	11/5/2015 5:24:14 PM	22200
Surr: Phenol-d5	29.4	4.13-124		%REC	1	11/5/2015 5:24:14 PM	22200
Surr: 2,4,6-Tribromophenol	62.7	5.14-132		%REC	1	11/5/2015 5:24:14 PM	22200
Surr: Nitrobenzene-d5	65.0	9.13-140		%REC	1	11/5/2015 5:24:14 PM	22200
Surr: 2-Fluorobiphenyl	59.5	10.8-132		%REC	1	11/5/2015 5:24:14 PM	22200
Surr: 4-Terphenyl-d14	34.3	12.9-107		%REC	1	11/5/2015 5:24:14 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	19	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Toluene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Ethylbenzene	41	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Methyl tert-butyl ether (MTBE)	83	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2,4-Trimethylbenzene	51	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,3,5-Trimethylbenzene	7.2	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Naphthalene	42	4.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1-Methylnaphthalene	110	8.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
2-Methylnaphthalene	27	8.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Acetone	ND	20	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Bromobenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Bromodichloromethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Bromoform	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Bromomethane	ND	6.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
2-Butanone	ND	20	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Carbon disulfide	ND	20	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Carbon Tetrachloride	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Chlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Chloroethane	ND	4.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Chloroform	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Chloromethane	ND	6.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
2-Chlorotoluene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
4-Chlorotoluene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:50:00 AM

Lab ID: 1511106-001

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,2-DCE	4.6	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Dibromochloromethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Dibromomethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,1-Dichloroethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,1-Dichloroethene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2-Dichloropropane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,3-Dichloropropane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
2,2-Dichloropropane	ND	4.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,1-Dichloropropene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Hexachlorobutadiene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
2-Hexanone	ND	20	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Isopropylbenzene	6.7	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
4-Isopropyltoluene	2.6	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
4-Methyl-2-pentanone	ND	20	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Methylene Chloride	ND	6.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
n-Butylbenzene	ND	6.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
n-Propylbenzene	11	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
sec-Butylbenzene	3.7	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Styrene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
tert-Butylbenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
trans-1,2-DCE	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Trichlorofluoromethane	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Vinyl chloride	ND	2.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:50:00 AM

Lab ID: 1511106-001

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Xylenes, Total	17	3.0	D	µg/L	2	11/5/2015 4:19:00 PM	R30038
Surr: 1,2-Dichloroethane-d4	93.0	70-130	D	%REC	2	11/5/2015 4:19:00 PM	R30038
Surr: 4-Bromofluorobenzene	101	70-130	D	%REC	2	11/5/2015 4:19:00 PM	R30038
Surr: Dibromofluoromethane	107	70-130	D	%REC	2	11/5/2015 4:19:00 PM	R30038
Surr: Toluene-d8	102	70-130	D	%REC	2	11/5/2015 4:19:00 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 8:43:00 AM

Lab ID: 1511106-002

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 5:28:54 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 6:34:13 PM	D30317
Selenium	0.0035	0.0010		mg/L	1	11/18/2015 6:34:13 PM	D30317
Uranium	0.0019	0.00050		mg/L	1	11/18/2015 6:34:13 PM	D30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.79	0.10		mg/L	1	11/4/2015 8:30:56 PM	R30015
Chloride	100	10		mg/L	20	11/4/2015 8:43:20 PM	R30015
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/4/2015 8:30:56 PM	R30015
Bromide	0.49	0.10		mg/L	1	11/4/2015 8:30:56 PM	R30015
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/4/2015 8:30:56 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/4/2015 8:30:56 PM	R30015
Sulfate	16	0.50		mg/L	1	11/4/2015 8:30:56 PM	R30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.57	0.0020		mg/L	1	11/17/2015 4:31:03 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:31:03 PM	A30284
Calcium	130	5.0		mg/L	5	11/18/2015 4:04:36 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:31:03 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:02:55 PM	A30311
Iron	2.6	0.10	*	mg/L	5	11/18/2015 4:04:36 PM	A30311
Magnesium	36	1.0		mg/L	1	11/17/2015 4:31:03 PM	A30284
Manganese	3.0	0.010	*	mg/L	5	11/18/2015 4:04:36 PM	A30311
Potassium	ND	1.0		mg/L	1	11/17/2015 4:31:03 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:31:03 PM	A30284
Sodium	180	5.0		mg/L	5	11/18/2015 4:04:36 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:02:55 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	2.3	0.020	*	mg/L	10	11/17/2015 2:00:41 PM	22252
Cadmium	ND	0.0020		mg/L	1	11/17/2015 1:58:59 PM	22252
Chromium	ND	0.0060		mg/L	1	11/17/2015 1:58:59 PM	22252
Copper	ND	0.0060		mg/L	1	11/17/2015 1:58:59 PM	22252
Iron	7.5	0.20	*	mg/L	10	11/17/2015 2:00:41 PM	22252
Manganese	4.5	0.020	*	mg/L	10	11/17/2015 2:00:41 PM	22252
Silver	ND	0.0050		mg/L	1	11/17/2015 1:58:59 PM	22252
Zinc	0.017	0.010		mg/L	1	11/17/2015 1:58:59 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0023	0.0010		mg/L	1	11/15/2015 7:08:01 PM	22252
Lead	0.011	0.0025		mg/L	5	11/17/2015 1:35:31 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 8:43:00 AM

Lab ID: 1511106-002

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	ND	0.0050		mg/L	5	11/17/2015 1:35:31 PM	22252
Uranium	0.0029	0.00050		mg/L	1	11/15/2015 7:08:01 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:54:19 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	2.8	1.0		mg/L	1	11/6/2015 11:56:34 AM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 11:56:34 AM	22175
Surr: DNOP	118	72-136		%REC	1	11/6/2015 11:56:34 AM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1.5	0.50		mg/L	10	11/4/2015 12:25:06 PM	R30006
Surr: BFB	90.9	57.8-137		%REC	10	11/4/2015 12:25:06 PM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Aniline	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 5:54:33 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Carbazole	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 8:43:00 AM

Lab ID: 1511106-002

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 5:54:33 PM	22200
2,4-Dimethylphenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 5:54:33 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 5:54:33 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
1-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2-Methylphenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
3+4-Methylphenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Naphthalene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 5:54:33 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 8:43:00 AM

Lab ID: 1511106-002

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Phenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 5:54:33 PM	22200
Surr: 2-Fluorophenol	58.5	4.63-113		%REC	1	11/5/2015 5:54:33 PM	22200
Surr: Phenol-d5	40.5	4.13-124		%REC	1	11/5/2015 5:54:33 PM	22200
Surr: 2,4,6-Tribromophenol	75.2	5.14-132		%REC	1	11/5/2015 5:54:33 PM	22200
Surr: Nitrobenzene-d5	79.8	9.13-140		%REC	1	11/5/2015 5:54:33 PM	22200
Surr: 2-Fluorobiphenyl	75.0	10.8-132		%REC	1	11/5/2015 5:54:33 PM	22200
Surr: 4-Terphenyl-d14	44.3	12.9-107		%REC	1	11/5/2015 5:54:33 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	190	10		µg/L	10	11/5/2015 5:41:15 PM	R30038
Toluene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Ethylbenzene	39	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Methyl tert-butyl ether (MTBE)	48	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2,4-Trimethylbenzene	9.0	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Naphthalene	2.0	2.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Acetone	ND	10		µg/L	1	11/5/2015 6:08:37 PM	R30038
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Bromoform	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Bromomethane	ND	3.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
2-Butanone	ND	10		µg/L	1	11/5/2015 6:08:37 PM	R30038
Carbon disulfide	ND	10		µg/L	1	11/5/2015 6:08:37 PM	R30038
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Chloroethane	ND	2.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Chloroform	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Chloromethane	ND	3.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 8:43:00 AM

Lab ID: 1511106-002

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,4-Dichlorobenzene	3.1	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,1-Dichloroethane	1.3	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
2-Hexanone	ND	10		µg/L	1	11/5/2015 6:08:37 PM	R30038
Isopropylbenzene	5.5	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 6:08:37 PM	R30038
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
n-Propylbenzene	16	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
sec-Butylbenzene	2.6	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Styrene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 6:08:37 PM	R30038
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 6:08:37 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-35

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 8:43:00 AM

Lab ID: 1511106-002

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	2.3	1.5		µg/L	1	11/5/2015 6:08:37 PM	R30038
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	11/5/2015 6:08:37 PM	R30038
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/5/2015 6:08:37 PM	R30038
Surr: Dibromofluoromethane	106	70-130		%REC	1	11/5/2015 6:08:37 PM	R30038
Surr: Toluene-d8	105	70-130		%REC	1	11/5/2015 6:08:37 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:25:00 AM

Lab ID: 1511106-003

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.010	0.0010	*	mg/L	1	11/18/2015 6:37:16 PM	D30317
Lead	ND	0.00050		mg/L	1	11/18/2015 6:37:16 PM	D30317
Selenium	0.0045	0.0010		mg/L	1	11/18/2015 6:37:16 PM	D30317
Uranium	0.013	0.00050		mg/L	1	11/18/2015 6:37:16 PM	D30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.61	0.10		mg/L	1	11/4/2015 9:20:34 PM	R30015
Chloride	78	10		mg/L	20	11/4/2015 9:32:59 PM	R30015
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/4/2015 9:20:34 PM	R30015
Bromide	0.64	0.10		mg/L	1	11/4/2015 9:20:34 PM	R30015
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/4/2015 9:20:34 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/4/2015 9:20:34 PM	R30015
Sulfate	120	10		mg/L	20	11/4/2015 9:32:59 PM	R30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.19	0.0020		mg/L	1	11/17/2015 4:32:44 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:32:44 PM	A30284
Calcium	98	1.0		mg/L	1	11/17/2015 4:32:44 PM	A30284
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:32:44 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:06:33 PM	A30311
Iron	0.65	0.020	*	mg/L	1	11/17/2015 4:32:44 PM	A30284
Magnesium	19	1.0		mg/L	1	11/17/2015 4:32:44 PM	A30284
Manganese	3.5	0.010	*	mg/L	5	11/18/2015 4:08:22 PM	A30311
Potassium	ND	1.0		mg/L	1	11/17/2015 4:32:44 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:32:44 PM	A30284
Sodium	250	5.0		mg/L	5	11/18/2015 4:08:22 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:06:33 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	12	0.20	*	mg/L	100	11/17/2015 2:06:30 PM	22252
Cadmium	ND	0.010		mg/L	5	11/24/2015 12:29:52 PM	22252
Chromium	0.17	0.030	*	mg/L	5	11/24/2015 12:29:52 PM	22252
Copper	0.19	0.030		mg/L	5	11/24/2015 12:29:52 PM	22252
Iron	75	2.0	*	mg/L	100	11/17/2015 2:06:30 PM	22252
Manganese	45	0.20	*	mg/L	100	11/17/2015 2:06:30 PM	22252
Silver	ND	0.025		mg/L	5	11/30/2015 12:52:40 PM	22252
Zinc	0.33	0.050		mg/L	5	11/24/2015 12:29:52 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.020	0.0050	*	mg/L	5	11/17/2015 1:41:32 PM	22252
Lead	0.35	0.010	*	mg/L	20	11/20/2015 7:59:39 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:25:00 AM

Lab ID: 1511106-003

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	ND	0.020		mg/L	20	11/20/2015 7:59:39 PM	22252
Uranium	0.048	0.0025	*	mg/L	5	11/17/2015 1:41:32 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 12:43:10 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	1.5	1.0		mg/L	1	11/6/2015 12:23:29 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 12:23:29 PM	22175
Surr: DNOP	113	72-136		%REC	1	11/6/2015 12:23:29 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2.5	0.25		mg/L	5	11/4/2015 12:49:44 PM	R30006
Surr: BFB	147	57.8-137	S	%REC	5	11/4/2015 12:49:44 PM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Aniline	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 6:24:40 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Carbazole	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:25:00 AM

Lab ID: 1511106-003

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 6:24:40 PM	22200
2,4-Dimethylphenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 6:24:40 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 6:24:40 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
1-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2-Methylphenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
3+4-Methylphenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Naphthalene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 6:24:40 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:25:00 AM

Lab ID: 1511106-003

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Phenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 6:24:40 PM	22200
Surr: 2-Fluorophenol	45.9	4.63-113		%REC	1	11/5/2015 6:24:40 PM	22200
Surr: Phenol-d5	34.3	4.13-124		%REC	1	11/5/2015 6:24:40 PM	22200
Surr: 2,4,6-Tribromophenol	65.8	5.14-132		%REC	1	11/5/2015 6:24:40 PM	22200
Surr: Nitrobenzene-d5	69.3	9.13-140		%REC	1	11/5/2015 6:24:40 PM	22200
Surr: 2-Fluorobiphenyl	62.6	10.8-132		%REC	1	11/5/2015 6:24:40 PM	22200
Surr: 4-Terphenyl-d14	42.0	12.9-107		%REC	1	11/5/2015 6:24:40 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	29	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Toluene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Ethylbenzene	310	20	D	µg/L	20	11/5/2015 6:36:01 PM	R30038
Methyl tert-butyl ether (MTBE)	770	20	D	µg/L	20	11/5/2015 6:36:01 PM	R30038
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Naphthalene	ND	4.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1-Methylnaphthalene	ND	8.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
2-Methylnaphthalene	ND	8.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Acetone	ND	20	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Bromobenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Bromodichloromethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Bromoform	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Bromomethane	ND	6.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
2-Butanone	ND	20	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Carbon disulfide	ND	20	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Carbon Tetrachloride	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Chlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Chloroethane	ND	4.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Chloroform	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Chloromethane	ND	6.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
2-Chlorotoluene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
4-Chlorotoluene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:25:00 AM

Lab ID: 1511106-003

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,2-DCE	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Dibromochloromethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Dibromomethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,1-Dichloroethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,1-Dichloroethene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2-Dichloropropane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,3-Dichloropropane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
2,2-Dichloropropane	ND	4.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,1-Dichloropropene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Hexachlorobutadiene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
2-Hexanone	ND	20	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Isopropylbenzene	22	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
4-Isopropyltoluene	2.4	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
4-Methyl-2-pentanone	ND	20	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Methylene Chloride	ND	6.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
n-Butylbenzene	ND	6.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
n-Propylbenzene	41	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
sec-Butylbenzene	5.0	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Styrene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
tert-Butylbenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
trans-1,2-DCE	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Trichlorofluoromethane	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Vinyl chloride	ND	2.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:25:00 AM

Lab ID: 1511106-003

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	ND	3.0	D	µg/L	2	11/5/2015 7:03:23 PM	R30038
Surr: 1,2-Dichloroethane-d4	94.3	70-130	D	%REC	2	11/5/2015 7:03:23 PM	R30038
Surr: 4-Bromofluorobenzene	101	70-130	D	%REC	2	11/5/2015 7:03:23 PM	R30038
Surr: Dibromofluoromethane	104	70-130	D	%REC	2	11/5/2015 7:03:23 PM	R30038
Surr: Toluene-d8	99.7	70-130	D	%REC	2	11/5/2015 7:03:23 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:58:00 AM

Lab ID: 1511106-004

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	0.018	0.0050	*	mg/L	5	11/22/2015 5:31:57 PM	C30411
Lead	0.0016	0.00050		mg/L	1	11/18/2015 6:46:29 PM	D30317
Selenium	ND	0.050		mg/L	5	11/22/2015 5:31:57 PM	C30411
Uranium	ND	0.00050		mg/L	1	11/18/2015 6:46:29 PM	D30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	11/4/2015 9:45:24 PM	R30015
Chloride	130	10		mg/L	20	11/4/2015 9:57:48 PM	R30015
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/4/2015 9:45:24 PM	R30015
Bromide	1.5	0.50		mg/L	5	11/4/2015 9:45:24 PM	R30015
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/4/2015 9:45:24 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/4/2015 9:45:24 PM	R30015
Sulfate	ND	2.5		mg/L	5	11/4/2015 9:45:24 PM	R30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	1.7	0.010		mg/L	5	11/18/2015 4:12:00 PM	A30311
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:34:37 PM	A30284
Calcium	150	5.0		mg/L	5	11/18/2015 4:12:00 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:34:37 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:10:21 PM	A30311
Iron	13	0.40	*	mg/L	20	11/18/2015 4:13:48 PM	A30311
Magnesium	30	1.0		mg/L	1	11/17/2015 4:34:37 PM	A30284
Manganese	3.4	0.010	*	mg/L	5	11/18/2015 4:12:00 PM	A30311
Potassium	ND	1.0		mg/L	1	11/17/2015 4:34:37 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:34:37 PM	A30284
Sodium	260	5.0		mg/L	5	11/18/2015 4:12:00 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:10:21 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	2.7	0.010	*	mg/L	5	11/17/2015 2:17:09 PM	22252
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:08:26 PM	22252
Chromium	0.017	0.0060		mg/L	1	11/17/2015 2:08:26 PM	22252
Copper	0.021	0.0060		mg/L	1	11/17/2015 2:08:26 PM	22252
Iron	34	1.0	*	mg/L	50	11/17/2015 2:18:56 PM	22252
Manganese	4.5	0.010	*	mg/L	5	11/17/2015 2:17:09 PM	22252
Silver	ND	0.0050		mg/L	1	11/17/2015 2:08:26 PM	22252
Zinc	0.096	0.010		mg/L	1	11/17/2015 2:08:26 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.018	0.0010	*	mg/L	1	11/15/2015 7:23:26 PM	22252
Lead	0.046	0.0025	*	mg/L	5	11/17/2015 1:50:38 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:58:00 AM

Lab ID: 1511106-004

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	0.010	0.0050		mg/L	5	11/17/2015 1:50:38 PM	22252
Uranium	0.0077	0.00050		mg/L	1	11/15/2015 7:23:26 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 5:58:21 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	13	1.0		mg/L	1	11/6/2015 12:50:29 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 12:50:29 PM	22175
Surr: DNOP	117	72-136		%REC	1	11/6/2015 12:50:29 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	34	0.50		mg/L	10	11/4/2015 1:14:18 PM	R30006
Surr: BFB	128	57.8-137		%REC	10	11/4/2015 1:14:18 PM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Aniline	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 6:54:59 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Carbazole	10	10		µg/L	1	11/5/2015 6:54:59 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:58:00 AM

Lab ID: 1511106-004

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 6:54:59 PM	22200
2,4-Dimethylphenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 6:54:59 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 6:54:59 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
1-Methylnaphthalene	160	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2-Methylnaphthalene	290	50		µg/L	5	11/6/2015 3:13:30 PM	22200
2-Methylphenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
3+4-Methylphenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Naphthalene	370	50		µg/L	5	11/6/2015 3:13:30 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 6:54:59 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:58:00 AM

Lab ID: 1511106-004

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Phenol	21	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 6:54:59 PM	22200
Surr: 2-Fluorophenol	41.6	4.63-113		%REC	1	11/5/2015 6:54:59 PM	22200
Surr: Phenol-d5	35.5	4.13-124		%REC	1	11/5/2015 6:54:59 PM	22200
Surr: 2,4,6-Tribromophenol	65.0	5.14-132		%REC	1	11/5/2015 6:54:59 PM	22200
Surr: Nitrobenzene-d5	68.5	9.13-140		%REC	1	11/5/2015 6:54:59 PM	22200
Surr: 2-Fluorobiphenyl	63.2	10.8-132		%REC	1	11/5/2015 6:54:59 PM	22200
Surr: 4-Terphenyl-d14	42.2	12.9-107		%REC	1	11/5/2015 6:54:59 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	2800	100		µg/L	100	11/5/2015 7:30:46 PM	R30038
Toluene	22	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Ethylbenzene	760	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Methyl tert-butyl ether (MTBE)	8400	100		µg/L	100	11/5/2015 7:30:46 PM	R30038
1,2,4-Trimethylbenzene	530	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,3,5-Trimethylbenzene	94	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Naphthalene	430	20		µg/L	10	11/5/2015 7:58:08 PM	R30038
1-Methylnaphthalene	170	40		µg/L	10	11/5/2015 7:58:08 PM	R30038
2-Methylnaphthalene	270	40		µg/L	10	11/5/2015 7:58:08 PM	R30038
Acetone	ND	100		µg/L	10	11/5/2015 7:58:08 PM	R30038
Bromobenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Bromodichloromethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Bromoform	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Bromomethane	ND	30		µg/L	10	11/5/2015 7:58:08 PM	R30038
2-Butanone	ND	100		µg/L	10	11/5/2015 7:58:08 PM	R30038
Carbon disulfide	ND	100		µg/L	10	11/5/2015 7:58:08 PM	R30038
Carbon Tetrachloride	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Chlorobenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Chloroethane	ND	20		µg/L	10	11/5/2015 7:58:08 PM	R30038
Chloroform	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Chloromethane	ND	30		µg/L	10	11/5/2015 7:58:08 PM	R30038
2-Chlorotoluene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
4-Chlorotoluene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:58:00 AM

Lab ID: 1511106-004

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
cis-1,2-DCE	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/5/2015 7:58:08 PM	R30038
Dibromochloromethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Dibromomethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,3-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,4-Dichlorobenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Dichlorodifluoromethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,1-Dichloroethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,1-Dichloroethene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2-Dichloropropane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,3-Dichloropropane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
2,2-Dichloropropane	ND	20		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,1-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Hexachlorobutadiene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
2-Hexanone	ND	100		µg/L	10	11/5/2015 7:58:08 PM	R30038
Isopropylbenzene	26	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
4-Isopropyltoluene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
4-Methyl-2-pentanone	ND	100		µg/L	10	11/5/2015 7:58:08 PM	R30038
Methylene Chloride	ND	30		µg/L	10	11/5/2015 7:58:08 PM	R30038
n-Butylbenzene	ND	30		µg/L	10	11/5/2015 7:58:08 PM	R30038
n-Propylbenzene	73	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
sec-Butylbenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Styrene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
tert-Butylbenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/5/2015 7:58:08 PM	R30038
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
trans-1,2-DCE	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,1,1-Trichloroethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,1,2-Trichloroethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Trichloroethene (TCE)	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
Trichlorofluoromethane	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038
1,2,3-Trichloropropane	ND	20		µg/L	10	11/5/2015 7:58:08 PM	R30038
Vinyl chloride	ND	10		µg/L	10	11/5/2015 7:58:08 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 9:58:00 AM

Lab ID: 1511106-004

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	930	15		µg/L	10	11/5/2015 7:58:08 PM	R30038
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	10	11/5/2015 7:58:08 PM	R30038
Surr: 4-Bromofluorobenzene	110	70-130		%REC	10	11/5/2015 7:58:08 PM	R30038
Surr: Dibromofluoromethane	112	70-130		%REC	10	11/5/2015 7:58:08 PM	R30038
Surr: Toluene-d8	98.6	70-130		%REC	10	11/5/2015 7:58:08 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 10:31:00 AM

Lab ID: 1511106-005

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 5:35:00 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 6:49:32 PM	D30317
Selenium	ND	0.020		mg/L	20	11/25/2015 7:05:48 PM	D30497
Uranium	0.027	0.010		mg/L	20	11/25/2015 7:05:48 PM	D30497
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.46	0.10		mg/L	1	11/4/2015 10:10:13 PM	R30015
Chloride	370	10		mg/L	20	11/4/2015 10:22:38 PM	R30015
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/4/2015 10:10:13 PM	R30015
Bromide	1.9	0.10		mg/L	1	11/4/2015 10:10:13 PM	R30015
Nitrogen, Nitrate (As N)	8.6	2.0		mg/L	20	11/4/2015 10:22:38 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/4/2015 10:10:13 PM	R30015
Sulfate	100	10		mg/L	20	11/4/2015 10:22:38 PM	R30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.12	0.0020		mg/L	1	11/17/2015 4:41:45 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:41:45 PM	A30284
Calcium	57	1.0		mg/L	1	11/17/2015 4:41:45 PM	A30284
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:41:45 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:15:41 PM	A30311
Iron	ND	0.020		mg/L	1	11/17/2015 4:41:45 PM	A30284
Magnesium	14	1.0		mg/L	1	11/17/2015 4:41:45 PM	A30284
Manganese	ND	0.0020		mg/L	1	11/17/2015 4:41:45 PM	A30284
Potassium	1.4	1.0		mg/L	1	11/17/2015 4:41:45 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:41:45 PM	A30284
Sodium	350	5.0		mg/L	5	11/18/2015 4:23:12 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:15:41 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.15	0.0020		mg/L	1	11/17/2015 2:20:47 PM	22252
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:20:47 PM	22252
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:20:47 PM	22252
Copper	ND	0.0060		mg/L	1	11/17/2015 2:20:47 PM	22252
Iron	1.0	0.020	*	mg/L	1	11/16/2015 7:13:23 PM	22252
Manganese	0.030	0.0020		mg/L	1	11/17/2015 2:20:47 PM	22252
Silver	ND	0.0050		mg/L	1	11/17/2015 2:20:47 PM	22252
Zinc	0.012	0.010		mg/L	1	11/17/2015 2:20:47 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/17/2015 1:53:39 PM	22252
Lead	0.0012	0.00050		mg/L	1	11/15/2015 7:28:35 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 10:31:00 AM

Lab ID: 1511106-005

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	ND	0.020		mg/L	20	11/20/2015 8:08:44 PM	22252
Uranium	0.027	0.0025		mg/L	5	11/17/2015 1:53:39 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 6:09:24 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 1:17:20 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 1:17:20 PM	22175
Surr: DNOP	119	72-136		%REC	1	11/6/2015 1:17:20 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/4/2015 1:38:50 PM	R30006
Surr: BFB	82.0	57.8-137		%REC	1	11/4/2015 1:38:50 PM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Aniline	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 7:25:09 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Carbazole	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 10:31:00 AM

Lab ID: 1511106-005

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 7:25:09 PM	22200
2,4-Dimethylphenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 7:25:09 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 7:25:09 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
1-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2-Methylphenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
3+4-Methylphenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Naphthalene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 7:25:09 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 10:31:00 AM

Lab ID: 1511106-005

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Phenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 7:25:09 PM	22200
Surr: 2-Fluorophenol	39.0	4.63-113		%REC	1	11/5/2015 7:25:09 PM	22200
Surr: Phenol-d5	31.8	4.13-124		%REC	1	11/5/2015 7:25:09 PM	22200
Surr: 2,4,6-Tribromophenol	67.7	5.14-132		%REC	1	11/5/2015 7:25:09 PM	22200
Surr: Nitrobenzene-d5	58.7	9.13-140		%REC	1	11/5/2015 7:25:09 PM	22200
Surr: 2-Fluorobiphenyl	57.8	10.8-132		%REC	1	11/5/2015 7:25:09 PM	22200
Surr: 4-Terphenyl-d14	37.6	12.9-107		%REC	1	11/5/2015 7:25:09 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Toluene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Ethylbenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Naphthalene	ND	2.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
2-Methylnaphthalene	ND	4.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Acetone	ND	10		µg/L	1	11/5/2015 8:25:28 PM	R30038
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Bromoform	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Bromomethane	ND	3.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
2-Butanone	ND	10		µg/L	1	11/5/2015 8:25:28 PM	R30038
Carbon disulfide	ND	10		µg/L	1	11/5/2015 8:25:28 PM	R30038
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Chloroethane	ND	2.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Chloroform	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Chloromethane	ND	3.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 10:31:00 AM

Lab ID: 1511106-005

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
cis-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,1-Dichloroethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,1-Dichloroethene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
2-Hexanone	ND	10		µg/L	1	11/5/2015 8:25:28 PM	R30038
Isopropylbenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
4-Isopropyltoluene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 8:25:28 PM	R30038
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
n-Butylbenzene	ND	3.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
n-Propylbenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
sec-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Styrene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Trichloroethene (TCE)	2.3	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 8:25:28 PM	R30038
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 8:25:28 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 10:31:00 AM

Lab ID: 1511106-005

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	ND	1.5		µg/L	1	11/5/2015 8:25:28 PM	R30038
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	11/5/2015 8:25:28 PM	R30038
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/5/2015 8:25:28 PM	R30038
Surr: Dibromofluoromethane	113	70-130		%REC	1	11/5/2015 8:25:28 PM	R30038
Surr: Toluene-d8	100	70-130		%REC	1	11/5/2015 8:25:28 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 12:26:00 PM

Lab ID: 1511106-006

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 5:38:04 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 6:52:35 PM	D30317
Selenium	ND	0.010		mg/L	10	11/25/2015 7:08:51 PM	D30497
Uranium	0.0036	0.00050		mg/L	1	11/18/2015 6:52:35 PM	D30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.46	0.10		mg/L	1	11/4/2015 10:59:53 PM	R30015
Chloride	170	10		mg/L	20	11/4/2015 11:12:17 PM	R30015
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/4/2015 10:59:53 PM	R30015
Bromide	1.0	0.10		mg/L	1	11/4/2015 10:59:53 PM	R30015
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/4/2015 10:59:53 PM	R30015
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/4/2015 10:59:53 PM	R30015
Sulfate	110	10		mg/L	20	11/4/2015 11:12:17 PM	R30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.50	0.0020		mg/L	1	11/17/2015 4:43:40 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:43:40 PM	A30284
Calcium	160	5.0		mg/L	5	11/18/2015 4:26:56 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:43:40 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:25:14 PM	A30311
Iron	3.2	0.10	*	mg/L	5	11/18/2015 4:26:56 PM	A30311
Magnesium	31	1.0		mg/L	1	11/17/2015 4:43:40 PM	A30284
Manganese	4.2	0.010	*	mg/L	5	11/18/2015 4:26:56 PM	A30311
Potassium	ND	1.0		mg/L	1	11/17/2015 4:43:40 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:43:40 PM	A30284
Sodium	250	5.0		mg/L	5	11/18/2015 4:26:56 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:25:14 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.71	0.0020		mg/L	1	11/17/2015 2:22:43 PM	22252
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:22:43 PM	22252
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:22:43 PM	22252
Copper	ND	0.0060		mg/L	1	11/17/2015 2:22:43 PM	22252
Iron	8.8	0.20	*	mg/L	10	11/17/2015 2:24:21 PM	22252
Manganese	4.3	0.020	*	mg/L	10	11/17/2015 2:24:21 PM	22252
Silver	ND	0.0050		mg/L	1	11/17/2015 2:22:43 PM	22252
Zinc	0.019	0.010		mg/L	1	11/17/2015 2:22:43 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0045	0.0010		mg/L	1	11/15/2015 7:33:42 PM	22252
Lead	0.011	0.00050		mg/L	1	11/15/2015 7:33:42 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 12:26:00 PM

Lab ID: 1511106-006

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	ND	0.050		mg/L	5	11/17/2015 1:56:40 PM	22252
Uranium	0.0051	0.00050		mg/L	1	11/15/2015 7:33:42 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 6:11:27 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	5.3	1.0		mg/L	1	11/6/2015 1:43:52 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 1:43:52 PM	22175
Surr: DNOP	111	72-136		%REC	1	11/6/2015 1:43:52 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	9.8	0.50		mg/L	10	11/4/2015 2:03:22 PM	R30006
Surr: BFB	110	57.8-137		%REC	10	11/4/2015 2:03:22 PM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Aniline	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 8:53:47 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Carbazole	13	10		µg/L	1	11/5/2015 8:53:47 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 12:26:00 PM

Lab ID: 1511106-006

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 8:53:47 PM	22200
2,4-Dimethylphenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 8:53:47 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 8:53:47 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
1-Methylnaphthalene	85	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2-Methylnaphthalene	11	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2-Methylphenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
3+4-Methylphenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Naphthalene	34	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 8:53:47 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 12:26:00 PM

Lab ID: 1511106-006

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Phenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 8:53:47 PM	22200
Surr: 2-Fluorophenol	50.0	4.63-113		%REC	1	11/5/2015 8:53:47 PM	22200
Surr: Phenol-d5	39.8	4.13-124		%REC	1	11/5/2015 8:53:47 PM	22200
Surr: 2,4,6-Tribromophenol	67.1	5.14-132		%REC	1	11/5/2015 8:53:47 PM	22200
Surr: Nitrobenzene-d5	72.9	9.13-140		%REC	1	11/5/2015 8:53:47 PM	22200
Surr: 2-Fluorobiphenyl	66.2	10.8-132		%REC	1	11/5/2015 8:53:47 PM	22200
Surr: 4-Terphenyl-d14	38.1	12.9-107		%REC	1	11/5/2015 8:53:47 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	1500	100		µg/L	100	11/6/2015 8:51:22 PM	R30087
Toluene	36	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Ethylbenzene	230	10		µg/L	10	11/5/2015 8:52:48 PM	R30038
Methyl tert-butyl ether (MTBE)	630	10		µg/L	10	11/5/2015 8:52:48 PM	R30038
1,2,4-Trimethylbenzene	73	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Naphthalene	41	2.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1-Methylnaphthalene	81	4.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
2-Methylnaphthalene	14	4.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Acetone	ND	10		µg/L	1	11/5/2015 9:20:09 PM	R30038
Bromobenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Bromodichloromethane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Bromoform	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Bromomethane	ND	3.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
2-Butanone	ND	10		µg/L	1	11/5/2015 9:20:09 PM	R30038
Carbon disulfide	ND	10		µg/L	1	11/5/2015 9:20:09 PM	R30038
Carbon Tetrachloride	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Chlorobenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Chloroethane	ND	2.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Chloroform	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Chloromethane	ND	3.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
2-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
4-Chlorotoluene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 12:26:00 PM

Lab ID: 1511106-006

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
cis-1,2-DCE	30	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Dibromochloromethane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Dibromomethane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,1-Dichloroethane	27	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,1-Dichloroethene	33	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,3-Dichloropropane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
2,2-Dichloropropane	ND	2.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,1-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Hexachlorobutadiene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
2-Hexanone	ND	10		µg/L	1	11/5/2015 9:20:09 PM	R30038
Isopropylbenzene	19	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
4-Isopropyltoluene	3.2	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
4-Methyl-2-pentanone	ND	10		µg/L	1	11/5/2015 9:20:09 PM	R30038
Methylene Chloride	ND	3.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
n-Butylbenzene	9.0	3.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
n-Propylbenzene	38	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
sec-Butylbenzene	6.4	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Styrene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
tert-Butylbenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Tetrachloroethene (PCE)	6.7	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
trans-1,2-DCE	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,1,1-Trichloroethane	48	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Trichloroethene (TCE)	6.1	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Trichlorofluoromethane	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/5/2015 9:20:09 PM	R30038
Vinyl chloride	ND	1.0		µg/L	1	11/5/2015 9:20:09 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 12:26:00 PM

Lab ID: 1511106-006

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	70	1.5		µg/L	1	11/5/2015 9:20:09 PM	R30038
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%REC	1	11/5/2015 9:20:09 PM	R30038
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/5/2015 9:20:09 PM	R30038
Surr: Dibromofluoromethane	105	70-130		%REC	1	11/5/2015 9:20:09 PM	R30038
Surr: Toluene-d8	97.0	70-130		%REC	1	11/5/2015 9:20:09 PM	R30038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:00:00 PM

Lab ID: 1511106-007

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.0056	0.0010		mg/L	1	11/18/2015 6:55:39 PM	D30317
Lead	ND	0.00050		mg/L	1	11/18/2015 6:55:39 PM	D30317
Selenium	0.0067	0.0050		mg/L	5	11/22/2015 5:41:07 PM	C30411
Uranium	ND	0.00050		mg/L	1	11/18/2015 6:55:39 PM	D30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	2.0		mg/L	20	11/5/2015 4:59:44 AM	A30015
Chloride	380	10		mg/L	20	11/5/2015 4:59:44 AM	A30015
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/5/2015 4:47:19 AM	A30015
Bromide	0.76	0.50		mg/L	5	11/17/2015 7:50:41 PM	R30314
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/5/2015 4:47:19 AM	A30015
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/5/2015 4:47:19 AM	A30015
Sulfate	ND	2.5		mg/L	5	11/5/2015 4:47:19 AM	A30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	13	0.040	*	mg/L	20	11/18/2015 4:32:15 PM	A30311
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:45:21 PM	A30284
Calcium	550	20		mg/L	20	11/18/2015 4:32:15 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:45:21 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:28:52 PM	A30311
Iron	50	2.0	*	mg/L	100	11/18/2015 4:34:03 PM	A30311
Magnesium	120	5.0		mg/L	5	11/18/2015 4:30:38 PM	A30311
Manganese	18	0.040	*	mg/L	20	11/18/2015 4:32:15 PM	A30311
Potassium	ND	1.0		mg/L	1	11/17/2015 4:45:21 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:45:21 PM	A30284
Sodium	420	5.0		mg/L	5	11/18/2015 4:30:38 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:28:52 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	14	0.040	*	mg/L	20	11/17/2015 2:28:10 PM	22252
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:26:19 PM	22252
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:26:19 PM	22252
Copper	ND	0.0060		mg/L	1	11/17/2015 2:26:19 PM	22252
Iron	61	2.0	*	mg/L	100	11/17/2015 2:30:02 PM	22252
Manganese	19	0.040	*	mg/L	20	11/17/2015 2:28:10 PM	22252
Silver	ND	0.0050		mg/L	1	11/17/2015 2:26:19 PM	22252
Zinc	0.032	0.010		mg/L	1	11/17/2015 2:26:19 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0059	0.0010		mg/L	1	11/15/2015 7:38:51 PM	22252
Lead	0.025	0.0025	*	mg/L	5	11/17/2015 1:59:40 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:00:00 PM

Lab ID: 1511106-007

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	ND	0.050		mg/L	5	11/17/2015 1:59:40 PM	22252
Uranium	0.0019	0.00050		mg/L	1	11/15/2015 7:38:51 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 6:13:30 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	8.0	1.0		mg/L	1	11/6/2015 2:10:53 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 2:10:53 PM	22175
Surr: DNOP	124	72-136		%REC	1	11/6/2015 2:10:53 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	100	5.0		mg/L	100	11/4/2015 2:27:51 PM	R30006
Surr: BFB	96.9	57.8-137		%REC	100	11/4/2015 2:27:51 PM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Aniline	29	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 9:23:05 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Carbazole	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:00:00 PM

Lab ID: 1511106-007

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 9:23:05 PM	22200
2,4-Dimethylphenol	93	10		µg/L	1	11/5/2015 9:23:05 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 9:23:05 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 9:23:05 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
1-Methylnaphthalene	60	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2-Methylnaphthalene	69	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2-Methylphenol	280	50		µg/L	5	11/6/2015 3:43:20 PM	22200
3+4-Methylphenol	420	50		µg/L	5	11/6/2015 3:43:20 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Naphthalene	140	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 9:23:05 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:00:00 PM

Lab ID: 1511106-007

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Phenol	240	50		µg/L	5	11/6/2015 3:43:20 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 9:23:05 PM	22200
Surr: 2-Fluorophenol	13.6	4.63-113		%REC	1	11/5/2015 9:23:05 PM	22200
Surr: Phenol-d5	36.3	4.13-124		%REC	1	11/5/2015 9:23:05 PM	22200
Surr: 2,4,6-Tribromophenol	74.6	5.14-132		%REC	1	11/5/2015 9:23:05 PM	22200
Surr: Nitrobenzene-d5	51.9	9.13-140		%REC	1	11/5/2015 9:23:05 PM	22200
Surr: 2-Fluorobiphenyl	68.4	10.8-132		%REC	1	11/5/2015 9:23:05 PM	22200
Surr: 4-Terphenyl-d14	35.5	12.9-107		%REC	1	11/5/2015 9:23:05 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	12000	500		µg/L	500	11/6/2015 9:18:43 PM	R30087
Toluene	22000	500		µg/L	500	11/6/2015 9:18:43 PM	R30087
Ethylbenzene	1600	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2,4-Trimethylbenzene	850	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,3,5-Trimethylbenzene	210	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Naphthalene	170	100		µg/L	50	11/6/2015 9:46:03 PM	R30087
1-Methylnaphthalene	ND	200		µg/L	50	11/6/2015 9:46:03 PM	R30087
2-Methylnaphthalene	ND	200		µg/L	50	11/6/2015 9:46:03 PM	R30087
Acetone	ND	500		µg/L	50	11/6/2015 9:46:03 PM	R30087
Bromobenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Bromodichloromethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Bromoform	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Bromomethane	ND	150		µg/L	50	11/6/2015 9:46:03 PM	R30087
2-Butanone	ND	500		µg/L	50	11/6/2015 9:46:03 PM	R30087
Carbon disulfide	ND	500		µg/L	50	11/6/2015 9:46:03 PM	R30087
Carbon Tetrachloride	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Chlorobenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Chloroethane	ND	100		µg/L	50	11/6/2015 9:46:03 PM	R30087
Chloroform	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Chloromethane	ND	150		µg/L	50	11/6/2015 9:46:03 PM	R30087
2-Chlorotoluene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
4-Chlorotoluene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:00:00 PM

Lab ID: 1511106-007

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
cis-1,2-DCE	57	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/6/2015 9:46:03 PM	R30087
Dibromochloromethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Dibromomethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2-Dichlorobenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,3-Dichlorobenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,4-Dichlorobenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Dichlorodifluoromethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,1-Dichloroethane	78	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,1-Dichloroethene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2-Dichloropropane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,3-Dichloropropane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
2,2-Dichloropropane	ND	100		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,1-Dichloropropene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Hexachlorobutadiene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
2-Hexanone	ND	500		µg/L	50	11/6/2015 9:46:03 PM	R30087
Isopropylbenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
4-Isopropyltoluene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
4-Methyl-2-pentanone	ND	500		µg/L	50	11/6/2015 9:46:03 PM	R30087
Methylene Chloride	ND	150		µg/L	50	11/6/2015 9:46:03 PM	R30087
n-Butylbenzene	ND	150		µg/L	50	11/6/2015 9:46:03 PM	R30087
n-Propylbenzene	120	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
sec-Butylbenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Styrene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
tert-Butylbenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/6/2015 9:46:03 PM	R30087
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
trans-1,2-DCE	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,1,1-Trichloroethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,1,2-Trichloroethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Trichloroethene (TCE)	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
Trichlorofluoromethane	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087
1,2,3-Trichloropropane	ND	100		µg/L	50	11/6/2015 9:46:03 PM	R30087
Vinyl chloride	ND	50		µg/L	50	11/6/2015 9:46:03 PM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:00:00 PM

Lab ID: 1511106-007

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	6800	75		µg/L	50	11/6/2015 9:46:03 PM	R30087
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%REC	50	11/6/2015 9:46:03 PM	R30087
Surr: 4-Bromofluorobenzene	102	70-130		%REC	50	11/6/2015 9:46:03 PM	R30087
Surr: Dibromofluoromethane	106	70-130		%REC	50	11/6/2015 9:46:03 PM	R30087
Surr: Toluene-d8	98.3	70-130		%REC	50	11/6/2015 9:46:03 PM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:15:00 PM

Lab ID: 1511106-008

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.0084	0.0010		mg/L	1	11/18/2015 6:58:42 PM	D30317
Lead	ND	0.00050		mg/L	1	11/18/2015 6:58:42 PM	D30317
Selenium	0.0064	0.0010		mg/L	1	11/18/2015 6:58:42 PM	D30317
Uranium	ND	0.00050		mg/L	1	11/18/2015 6:58:42 PM	D30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	2.0		mg/L	20	11/5/2015 5:24:34 AM	A30015
Chloride	740	25		mg/L	50	11/18/2015 8:26:07 PM	R30349
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/5/2015 5:12:09 AM	A30015
Bromide	0.89	0.50		mg/L	5	11/18/2015 8:13:42 PM	R30349
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/5/2015 5:12:09 AM	A30015
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/5/2015 5:12:09 AM	A30015
Sulfate	ND	2.5		mg/L	5	11/5/2015 5:12:09 AM	A30015
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	4.0	0.010	*	mg/L	5	11/18/2015 4:37:44 PM	A30311
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:47:07 PM	A30284
Calcium	190	5.0		mg/L	5	11/18/2015 4:37:44 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:47:07 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:36:00 PM	A30311
Iron	12	0.40	*	mg/L	20	11/18/2015 4:39:30 PM	A30311
Magnesium	49	1.0		mg/L	1	11/17/2015 4:47:07 PM	A30284
Manganese	3.6	0.010	*	mg/L	5	11/18/2015 4:37:44 PM	A30311
Potassium	1.5	1.0		mg/L	1	11/17/2015 4:47:07 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 4:47:07 PM	A30284
Sodium	620	20		mg/L	20	11/18/2015 4:39:30 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:36:00 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	3.8	0.010	*	mg/L	5	11/17/2015 2:33:43 PM	22252
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:32:00 PM	22252
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:32:00 PM	22252
Copper	ND	0.0060		mg/L	1	11/17/2015 2:32:00 PM	22252
Iron	15	0.40	*	mg/L	20	11/17/2015 2:42:31 PM	22252
Manganese	3.5	0.010	*	mg/L	5	11/17/2015 2:33:43 PM	22252
Silver	ND	0.0050		mg/L	1	11/17/2015 2:32:00 PM	22252
Zinc	0.017	0.010		mg/L	1	11/17/2015 2:32:00 PM	22252
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0078	0.0010		mg/L	1	11/15/2015 7:44:00 PM	22252
Lead	0.0031	0.00050		mg/L	1	11/15/2015 7:44:00 PM	22252

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:15:00 PM

Lab ID: 1511106-008

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Selenium	0.0054	0.0050		mg/L	5	11/17/2015 2:02:41 PM	22252
Uranium	0.00073	0.00050		mg/L	1	11/15/2015 7:44:00 PM	22252
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 3:23:46 PM	22333
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	2.9	1.0		mg/L	1	11/6/2015 2:37:51 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 2:37:51 PM	22175
Surr: DNOP	114	72-136		%REC	1	11/6/2015 2:37:51 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	71	2.5		mg/L	50	11/4/2015 2:52:29 PM	R30006
Surr: BFB	95.3	57.8-137		%REC	50	11/4/2015 2:52:29 PM	R30006
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Aniline	38	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 9:52:21 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Carbazole	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:15:00 PM

Lab ID: 1511106-008

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 9:52:21 PM	22200
2,4-Dimethylphenol	110	10		µg/L	1	11/5/2015 9:52:21 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 9:52:21 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 9:52:21 PM	22200
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
1-Methylnaphthalene	22	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2-Methylnaphthalene	23	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2-Methylphenol	300	50		µg/L	5	11/6/2015 4:12:55 PM	22200
3+4-Methylphenol	270	50		µg/L	5	11/6/2015 4:12:55 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Naphthalene	73	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 9:52:21 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:15:00 PM

Lab ID: 1511106-008

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenanthrene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Phenol	90	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 9:52:21 PM	22200
Surr: 2-Fluorophenol	24.9	4.63-113		%REC	1	11/5/2015 9:52:21 PM	22200
Surr: Phenol-d5	30.7	4.13-124		%REC	1	11/5/2015 9:52:21 PM	22200
Surr: 2,4,6-Tribromophenol	51.6	5.14-132		%REC	1	11/5/2015 9:52:21 PM	22200
Surr: Nitrobenzene-d5	69.2	9.13-140		%REC	1	11/5/2015 9:52:21 PM	22200
Surr: 2-Fluorobiphenyl	64.1	10.8-132		%REC	1	11/5/2015 9:52:21 PM	22200
Surr: 4-Terphenyl-d14	37.7	12.9-107		%REC	1	11/5/2015 9:52:21 PM	22200
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	11000	500		µg/L	500	11/6/2015 11:35:20 PM	R30087
Toluene	13000	500		µg/L	500	11/6/2015 11:35:20 PM	R30087
Ethylbenzene	960	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Methyl tert-butyl ether (MTBE)	56	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2,4-Trimethylbenzene	570	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,3,5-Trimethylbenzene	140	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Naphthalene	ND	100		µg/L	50	11/7/2015 12:02:36 AM	R30087
1-Methylnaphthalene	ND	200		µg/L	50	11/7/2015 12:02:36 AM	R30087
2-Methylnaphthalene	ND	200		µg/L	50	11/7/2015 12:02:36 AM	R30087
Acetone	ND	500		µg/L	50	11/7/2015 12:02:36 AM	R30087
Bromobenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Bromodichloromethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Bromoform	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Bromomethane	ND	150		µg/L	50	11/7/2015 12:02:36 AM	R30087
2-Butanone	ND	500		µg/L	50	11/7/2015 12:02:36 AM	R30087
Carbon disulfide	ND	500		µg/L	50	11/7/2015 12:02:36 AM	R30087
Carbon Tetrachloride	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Chlorobenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Chloroethane	ND	100		µg/L	50	11/7/2015 12:02:36 AM	R30087
Chloroform	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Chloromethane	ND	150		µg/L	50	11/7/2015 12:02:36 AM	R30087
2-Chlorotoluene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
4-Chlorotoluene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:15:00 PM

Lab ID: 1511106-008

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
cis-1,2-DCE	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/7/2015 12:02:36 AM	R30087
Dibromochloromethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Dibromomethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2-Dichlorobenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,3-Dichlorobenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,4-Dichlorobenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Dichlorodifluoromethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,1-Dichloroethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,1-Dichloroethene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2-Dichloropropane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,3-Dichloropropane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
2,2-Dichloropropane	ND	100		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,1-Dichloropropene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Hexachlorobutadiene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
2-Hexanone	ND	500		µg/L	50	11/7/2015 12:02:36 AM	R30087
Isopropylbenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
4-Isopropyltoluene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
4-Methyl-2-pentanone	ND	500		µg/L	50	11/7/2015 12:02:36 AM	R30087
Methylene Chloride	ND	150		µg/L	50	11/7/2015 12:02:36 AM	R30087
n-Butylbenzene	ND	150		µg/L	50	11/7/2015 12:02:36 AM	R30087
n-Propylbenzene	87	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
sec-Butylbenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Styrene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
tert-Butylbenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/7/2015 12:02:36 AM	R30087
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
trans-1,2-DCE	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,1,1-Trichloroethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,1,2-Trichloroethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Trichloroethene (TCE)	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
Trichlorofluoromethane	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087
1,2,3-Trichloropropane	ND	100		µg/L	50	11/7/2015 12:02:36 AM	R30087
Vinyl chloride	ND	50		µg/L	50	11/7/2015 12:02:36 AM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 1:15:00 PM

Lab ID: 1511106-008

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Xylenes, Total	3900	75		µg/L	50	11/7/2015 12:02:36 AM	R30087
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	50	11/7/2015 12:02:36 AM	R30087
Surr: 4-Bromofluorobenzene	106	70-130		%REC	50	11/7/2015 12:02:36 AM	R30087
Surr: Dibromofluoromethane	108	70-130		%REC	50	11/7/2015 12:02:36 AM	R30087
Surr: Toluene-d8	98.2	70-130		%REC	50	11/7/2015 12:02:36 AM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 4th QTR MKTF Wells

Collection Date:

Lab ID: 1511106-009

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/4/2015 3:17:06 PM	R30006
Surr: BFB	81.8	57.8-137		%REC	1	11/4/2015 3:17:06 PM	R30006
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Toluene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Ethylbenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Naphthalene	ND	2.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
2-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Acetone	ND	10		µg/L	1	11/9/2015 1:37:54 PM	R30125
Bromobenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Bromodichloromethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Bromoform	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Bromomethane	ND	3.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
2-Butanone	ND	10		µg/L	1	11/9/2015 1:37:54 PM	R30125
Carbon disulfide	ND	10		µg/L	1	11/9/2015 1:37:54 PM	R30125
Carbon Tetrachloride	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Chlorobenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Chloroethane	ND	2.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Chloroform	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Chloromethane	ND	3.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
2-Chlorotoluene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
4-Chlorotoluene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
cis-1,2-DCE	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Dibromochloromethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Dibromomethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,1-Dichloroethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,1-Dichloroethene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 4th QTR MKTF Wells

Collection Date:

Lab ID: 1511106-009

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,3-Dichloropropane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
2,2-Dichloropropane	ND	2.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,1-Dichloropropene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Hexachlorobutadiene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
2-Hexanone	ND	10		µg/L	1	11/9/2015 1:37:54 PM	R30125
Isopropylbenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
4-Isopropyltoluene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
4-Methyl-2-pentanone	ND	10		µg/L	1	11/9/2015 1:37:54 PM	R30125
Methylene Chloride	ND	3.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
n-Butylbenzene	ND	3.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
n-Propylbenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
sec-Butylbenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Styrene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
tert-Butylbenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
trans-1,2-DCE	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Trichlorofluoromethane	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Vinyl chloride	ND	1.0		µg/L	1	11/9/2015 1:37:54 PM	R30125
Xylenes, Total	ND	1.5		µg/L	1	11/9/2015 1:37:54 PM	R30125
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	1	11/9/2015 1:37:54 PM	R30125
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	11/9/2015 1:37:54 PM	R30125
Surr: Dibromofluoromethane	114	70-130		%REC	1	11/9/2015 1:37:54 PM	R30125
Surr: Toluene-d8	102	70-130		%REC	1	11/9/2015 1:37:54 PM	R30125

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:00:00 AM

Lab ID: 1511106-010

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Benzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Toluene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Ethylbenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Naphthalene	ND	2.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
2-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Acetone	ND	10		µg/L	1	11/6/2015 8:23:58 PM	R30087
Bromobenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Bromodichloromethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Bromoform	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Bromomethane	ND	3.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
2-Butanone	ND	10		µg/L	1	11/6/2015 8:23:58 PM	R30087
Carbon disulfide	ND	10		µg/L	1	11/6/2015 8:23:58 PM	R30087
Carbon Tetrachloride	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Chlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Chloroethane	ND	2.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Chloroform	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Chloromethane	ND	3.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
2-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
4-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
cis-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Dibromochloromethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Dibromomethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,1-Dichloroethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,1-Dichloroethene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,3-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
2,2-Dichloropropane	ND	2.0		µg/L	1	11/6/2015 8:23:58 PM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:00:00 AM

Lab ID: 1511106-010

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Hexachlorobutadiene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
2-Hexanone	ND	10		µg/L	1	11/6/2015 8:23:58 PM	R30087
Isopropylbenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
4-Isopropyltoluene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
4-Methyl-2-pentanone	ND	10		µg/L	1	11/6/2015 8:23:58 PM	R30087
Methylene Chloride	ND	3.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
n-Butylbenzene	ND	3.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
n-Propylbenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
sec-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Styrene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
tert-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
trans-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Trichlorofluoromethane	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Vinyl chloride	ND	1.0		µg/L	1	11/6/2015 8:23:58 PM	R30087
Xylenes, Total	ND	1.5		µg/L	1	11/6/2015 8:23:58 PM	R30087
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	11/6/2015 8:23:58 PM	R30087
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	11/6/2015 8:23:58 PM	R30087
Surr: Dibromofluoromethane	106	70-130		%REC	1	11/6/2015 8:23:58 PM	R30087
Surr: Toluene-d8	95.8	70-130		%REC	1	11/6/2015 8:23:58 PM	R30087

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:00:00 AM

Lab ID: 1511106-011

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Acenaphthylene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Aniline	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Anthracene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Azobenzene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Benz(a)anthracene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Benzo(a)pyrene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Benzo(b)fluoranthene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Benzo(k)fluoranthene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Benzoic acid	ND	20		µg/L	1	11/5/2015 10:21:36 PM	22200
Benzyl alcohol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Butyl benzyl phthalate	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Carbazole	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
4-Chloroaniline	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2-Chloronaphthalene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2-Chlorophenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Chrysene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Di-n-butyl phthalate	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Di-n-octyl phthalate	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Dibenzofuran	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
1,2-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
1,3-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
1,4-Dichlorobenzene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Diethyl phthalate	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Dimethyl phthalate	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2,4-Dichlorophenol	ND	20		µg/L	1	11/5/2015 10:21:36 PM	22200
2,4-Dimethylphenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/5/2015 10:21:36 PM	22200
2,4-Dinitrophenol	ND	20		µg/L	1	11/5/2015 10:21:36 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511106

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/3/2015 7:00:00 AM

Lab ID: 1511106-011

Matrix: AQUEOUS

Received Date: 11/3/2015 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2,6-Dinitrotoluene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Fluoranthene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Fluorene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Hexachlorobenzene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Hexachlorobutadiene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Hexachloroethane	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Isophorone	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
1-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2-Methylnaphthalene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2-Methylphenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
3+4-Methylphenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
N-Nitrosodimethylamine	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Naphthalene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2-Nitroaniline	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
3-Nitroaniline	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
4-Nitroaniline	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Nitrobenzene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2-Nitrophenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
4-Nitrophenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Pentachlorophenol	ND	20		µg/L	1	11/5/2015 10:21:36 PM	22200
Phenanthrene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Phenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Pyrene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Pyridine	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/5/2015 10:21:36 PM	22200
Surr: 2-Fluorophenol	46.7	4.63-113		%REC	1	11/5/2015 10:21:36 PM	22200
Surr: Phenol-d5	36.0	4.13-124		%REC	1	11/5/2015 10:21:36 PM	22200
Surr: 2,4,6-Tribromophenol	66.6	5.14-132		%REC	1	11/5/2015 10:21:36 PM	22200
Surr: Nitrobenzene-d5	70.3	9.13-140		%REC	1	11/5/2015 10:21:36 PM	22200
Surr: 2-Fluorobiphenyl	59.8	10.8-132		%REC	1	11/5/2015 10:21:36 PM	22200
Surr: 4-Terphenyl-d14	34.4	12.9-107		%REC	1	11/5/2015 10:21:36 PM	22200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A30284			RunNo: 30284					
Prep Date:		Analysis Date: 11/17/2015			SeqNo: 923644		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A30284		RunNo: 30284					
Prep Date:			Analysis Date: 11/17/2015		SeqNo: 923645		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Iron	0.47	0.020	0.5000	0	94.8	85	115			
Magnesium	49	1.0	50.00	0	97.9	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Potassium	49	1.0	50.00	0	98.3	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			

Sample ID	LLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30284		RunNo: 30284					
Prep Date:			Analysis Date: 11/17/2015		SeqNo: 923646		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0028	0.0020	0.002000	0	142	50	150			
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Calcium	ND	1.0	0.5000	0	129	50	150			
Chromium	0.0075	0.0060	0.006000	0	124	50	150			
Iron	0.023	0.020	0.02000	0	116	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	0.0023	0.0020	0.002000	0	116	50	150			
Potassium	ND	1.0	0.5000	0	83.7	50	150			
Silver	ND	0.0050	0.005000	0	95.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-A		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A30311		RunNo:	30311			
Prep Date:			Analysis Date:	11/18/2015		SeqNo:	924769	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-A		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A30311		RunNo:	30311			
Prep Date:			Analysis Date:	11/18/2015		SeqNo:	924770	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.4	85	115			
Calcium	49	1.0	50.00	0	99.0	85	115			
Copper	0.49	0.0060	0.5000	0	98.7	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Magnesium	50	1.0	50.00	0	99.1	85	115			
Manganese	0.48	0.0020	0.5000	0	95.3	85	115			
Sodium	48	1.0	50.00	0	96.4	85	115			
Zinc	0.48	0.010	0.5000	0	96.4	85	115			

Sample ID	LLCS-A		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A30311		RunNo:	30311			
Prep Date:			Analysis Date:	11/18/2015		SeqNo:	924771	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	108	50	150			
Copper	0.0064	0.0060	0.006000	0	108	50	150			
Iron	0.026	0.020	0.02000	0	129	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Sodium	ND	1.0	0.5000	0	95.9	50	150			

Sample ID	LLCS-A		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A30311		RunNo:	30311			
Prep Date:			Analysis Date:	11/18/2015		SeqNo:	924962	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	LLLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30311		RunNo: 30311					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 924962		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	108	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-22252		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 22252		RunNo: 30187					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 919745		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LLCS-22252		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 22252		RunNo: 30187					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 919746		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0026	0.0020	0.002000	0	132	50	150			
Cadmium	0.0023	0.0020	0.002000	0	113	50	150			
Chromium	0.0061	0.0060	0.006000	0	101	50	150			
Copper	0.0083	0.0060	0.006000	0	138	50	150			
Iron	ND	0.020	0.02000	0	68.6	50	150			
Manganese	ND	0.0020	0.002000	0	99.5	50	150			
Silver	ND	0.0050	0.005000	0	89.6	50	150			
Zinc	ND	0.010	0.005000	0	121	50	150			

Sample ID	LCS-22252		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 22252		RunNo: 30187					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 919747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.7	85	115			
Iron	0.48	0.020	0.5000	0	95.8	85	115			
Manganese	0.47	0.0020	0.5000	0	95.0	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.47	0.010	0.5000	0	93.2	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	1511106-001EMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-18			Batch ID:	22252		RunNo:	30284			
Prep Date:	11/9/2015			Analysis Date:	11/17/2015		SeqNo:	923958		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Cadmium	0.44	0.0020	0.5000	0	89.0	70	130				
Chromium	0.45	0.0060	0.5000	0.04595	81.5	70	130				
Copper	0.49	0.0060	0.5000	0.06420	84.5	70	130				
Zinc	0.57	0.010	0.5000	0.1884	75.7	70	130				

Sample ID	1511106-001EMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-18		Batch ID: 22252		RunNo: 30284					
Prep Date:	11/9/2015		Analysis Date: 11/17/2015		SeqNo: 923959		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.45	0.0020	0.5000	0	89.2	70	130	0.263	20	
Chromium	0.45	0.0060	0.5000	0.04595	81.2	70	130	0.415	20	
Copper	0.49	0.0060	0.5000	0.06420	85.2	70	130	0.778	20	
Zinc	0.56	0.010	0.5000	0.1884	74.8	70	130	0.802	20	

Sample ID	1511106-001EMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-18			Batch ID:	22252		RunNo:	30311			
Prep Date:	11/9/2015			Analysis Date:	11/18/2015		SeqNo:	924965		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.091	0.0050	0.1000	0	91.2	70	130				

Sample ID	1511106-001EMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-18			Batch ID:	22252		RunNo:	30311			
Prep Date:	11/9/2015			Analysis Date:	11/18/2015		SeqNo:	924969		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.055	0.0050	0.1000	0	55.3	70	130	49.0	20	SR	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: D30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926091		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.7	85	115			
Lead	0.012	0.00050	0.01250	0	92.2	85	115			
Selenium	0.025	0.0010	0.02500	0	98.9	85	115			
Uranium	0.012	0.00050	0.01250	0	92.1	85	115			

Sample ID LLCS		SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC		Batch ID: D30317			RunNo: 30317					
Prep Date:		Analysis Date: 11/18/2015			SeqNo: 926094		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	106	50	150			
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	111	50	150			
Uranium	ND	0.00050	0.0005000	0	96.6	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: D30317			RunNo: 30317					
Prep Date:		Analysis Date: 11/18/2015			SeqNo: 926097		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928161		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928162		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.8	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	C30411	RunNo:	30411					
Prep Date:		Analysis Date:	11/22/2015	SeqNo:	928163	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	D30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931124	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	D30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931127	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00052	0.00050	0.0005000	0	103	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	D30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931130	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-22252		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	22252		RunNo:	30208			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	920657		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22252		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	22252		RunNo:	30208			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	920660		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.023	0.0010	0.02500	0	93.2	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	MSLLCS-22252		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	22252		RunNo:	30208			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	920663		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	109	50	150			
Lead	ND	0.00050	0.0005000	0	94.0	50	150			
Selenium	ND	0.0010	0.001000	0	77.9	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID	1511106-002EMSLL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-35		Batch ID:	22252		RunNo:	30252			
Prep Date:	11/9/2015		Analysis Date:	11/15/2015		SeqNo:	922292		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002350	94.3	70	130			
Uranium	0.017	0.00050	0.01250	0.002888	114	70	130			

Sample ID	1511106-002EMSLL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-35		Batch ID:	22252		RunNo:	30297			
Prep Date:	11/9/2015		Analysis Date:	11/17/2015		SeqNo:	924268		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0025	0.01250	0.01069	106	70	130			
Selenium	0.024	0.0050	0.02500	0.003661	83.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-22333		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22333		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921268		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-22333		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22333		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921269		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0056	0.00020	0.005000	0	112	80	120			

Sample ID	MB-22341		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22341		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921328		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22341		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22341		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921336		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0061	0.00020	0.005000	0	121	80	120			S

Sample ID	MB-22360		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22360		RunNo: 30290					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923889		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22360		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22360		RunNo: 30290					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923890		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.0	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30015	RunNo:	30015					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914384	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30015	RunNo:	30015					
Prep Date:		Analysis Date:	11/4/2015	SeqNo:	914385	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.1	90	110			
Chloride	4.8	0.50	5.000	0	96.8	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.7	90	110			
Bromide	2.5	0.10	2.500	0	98.5	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.6	90	110			
Sulfate	9.8	0.50	10.00	0	98.0	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A30015	RunNo:	30015					
Prep Date:		Analysis Date:	11/5/2015	SeqNo:	914438	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	A30015	RunNo:	30015					
Prep Date:		Analysis Date:	11/5/2015	SeqNo:	914439	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Chloride	5.2	0.50	5.000	0	103	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: A30015		RunNo: 30015					
Prep Date:			Analysis Date: 11/5/2015		SeqNo: 914439		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	106	90	110			
Nitrogen, Nitrate (As N)	2.8	0.10	2.500	0	111	90	110			S
Phosphorus, Orthophosphate (As P	5.2	0.50	5.000	0	104	90	110			
Sulfate	10	0.50	10.00	0	104	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R30314			RunNo: 30314					
Prep Date:		Analysis Date: 11/17/2015			SeqNo: 924816		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R30314		RunNo: 30314					
Prep Date:			Analysis Date: 11/17/2015		SeqNo: 924817		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	97.7	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R30349			RunNo: 30349					
Prep Date:		Analysis Date: 11/18/2015			SeqNo: 926243		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R30349		RunNo: 30349					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926244		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.1	90	110			
Bromide	2.4	0.10	2.500	0	96.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-22175	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 22175			RunNo: 30057					
Prep Date:	11/4/2015	Analysis Date: 11/6/2015			SeqNo: 915909		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	72	136			

Sample ID	LCS-22175		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 22175		RunNo: 30057					
Prep Date:	11/4/2015		Analysis Date: 11/6/2015		SeqNo: 915910		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	52.4	154			
Surr: DNOP	0.55		0.5000		111	72	136			

Sample ID	1511106-001BMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MKTF-18		Batch ID: 22175		RunNo: 30057					
Prep Date:	11/4/2015		Analysis Date: 11/6/2015		SeqNo: 915912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	7.9	1.0	5.000	2.523	107	41.3	177			
Surr: DNOP	0.58		0.5000		116	72	136			

Sample ID	1511106-001BMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MKTF-18		Batch ID: 22175		RunNo: 30057					
Prep Date:	11/4/2015		Analysis Date: 11/6/2015		SeqNo: 915913		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.1	1.0	5.000	2.523	131	-94.6	317	14.5	22.1	
Surr: DNOP	0.64		0.5000		127	72	136	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R30006			RunNo: 30006					
Prep Date:		Analysis Date: 11/4/2015			SeqNo: 914005		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		82.2	57.8	137			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R30006		RunNo: 30006					
Prep Date:			Analysis Date: 11/4/2015		SeqNo: 914006		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	90.8	80	120			
Surr: BFB	19		20.00		96.1	57.8	137			

Sample ID	1511106-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-18		Batch ID: R30006		RunNo: 30006					
Prep Date:			Analysis Date: 11/4/2015		SeqNo: 914008		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.1	0.25	2.500	1.321	111	70	130			
Surr: BFB	120		100.0		119	57.8	137			

Sample ID	1511106-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-18		Batch ID: R30006		RunNo: 30006					
Prep Date:			Analysis Date: 11/4/2015		SeqNo: 914009		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.0	0.25	2.500	1.321	106	70	130	3.10	20	
Surr: BFB	120		100.0		117	57.8	137	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30038			RunNo: 30038					
Prep Date:		Analysis Date: 11/5/2015			SeqNo: 915208	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R30038				RunNo: 30038				
Prep Date:		Analysis Date: 11/5/2015				SeqNo: 915208	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R30038				RunNo: 30038				
Prep Date:		Analysis Date: 11/5/2015				SeqNo: 915209	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R30038		RunNo: 30038					
Prep Date:			Analysis Date: 11/5/2015		SeqNo: 915209		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18	1.0	20.00	0	89.7	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	99.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	1511106-001a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	MKTF-18	Batch ID: R30038			RunNo: 30038					
Prep Date:		Analysis Date: 11/5/2015			SeqNo: 915215		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	62	2.0	40.00	18.89	109	70	130			D
Toluene	42	2.0	40.00	1.466	103	70	130			D
Chlorobenzene	41	2.0	40.00	0	104	70	130			D
1,1-Dichloroethene	41	2.0	40.00	0.5932	101	70	130			D
Trichloroethene (TCE)	40	2.0	40.00	0	99.2	70	130			D
Surr: 1,2-Dichloroethane-d4	19		20.00		94.4	70	130			D
Surr: 4-Bromofluorobenzene	21		20.00		105	70	130			D
Surr: Dibromofluoromethane	22		20.00		112	70	130			D
Surr: Toluene-d8	19		20.00		97.1	70	130			D

Sample ID	1511106-001a msd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	MKTF-18		Batch ID: R30038		RunNo: 30038					
Prep Date:			Analysis Date: 11/5/2015		SeqNo: 915216		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	59	2.0	40.00	18.89	99.3	70	130	6.42	20	D
Toluene	44	2.0	40.00	1.466	105	70	130	2.51	20	D
Chlorobenzene	42	2.0	40.00	0	105	70	130	1.10	20	D
1,1-Dichloroethene	38	2.0	40.00	0.5932	94.5	70	130	6.12	20	D
Trichloroethene (TCE)	38	2.0	40.00	0	95.8	70	130	3.47	20	D
Surr: 1,2-Dichloroethane-d4	19		20.00		97.4	70	130	0	0	D
Surr: 4-Bromofluorobenzene	20		20.00		101	70	130	0	0	D
Surr: Dibromofluoromethane	22		20.00		110	70	130	0	0	D
Surr: Toluene-d8	20		20.00		102	70	130	0	0	D

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30087			RunNo: 30087					
Prep Date:		Analysis Date: 11/6/2015			SeqNo: 916554	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R30087				RunNo: 30087				
Prep Date:		Analysis Date: 11/6/2015				SeqNo: 916554	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID	100ng lcsb	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R30087				RunNo: 30087				
Prep Date:		Analysis Date: 11/6/2015				SeqNo: 916555	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	21	1.0	20.00	0	105	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	100ng lcsb	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R30087			RunNo: 30087					
Prep Date:		Analysis Date: 11/6/2015			SeqNo: 916555		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	94.2	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30125			RunNo: 30125					
Prep Date:		Analysis Date: 11/9/2015			SeqNo: 917666		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R30125				RunNo: 30125				
Prep Date:		Analysis Date: 11/9/2015				SeqNo: 917666	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30125	RunNo:	30125					
Prep Date:		Analysis Date:	11/9/2015	SeqNo:	917666	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100ng lcs c	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R30125	RunNo:	30125					
Prep Date:		Analysis Date:	11/9/2015	SeqNo:	917667	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	22	1.0	20.00	0	109	70	130			
Chlorobenzene	22	1.0	20.00	0	111	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	102	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	mb-22200		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 22200		RunNo: 30040					
Prep Date:	11/5/2015		Analysis Date: 11/5/2015		SeqNo: 915330		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	mb-22200	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	22200	RunNo:	30040					
Prep Date:	11/5/2015	Analysis Date:	11/5/2015	SeqNo:	915330	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	100		200.0		51.9	4.63	113			
Surr: Phenol-d5	76		200.0		38.1	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		69.2	5.14	132			
Surr: Nitrobenzene-d5	72		100.0		71.8	9.13	140			
Surr: 2-Fluorobiphenyl	71		100.0		71.0	10.8	132			
Surr: 4-Terphenyl-d14	41		100.0		41.3	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	lcs-22200		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 22200		RunNo: 30040					
Prep Date:	11/5/2015		Analysis Date: 11/5/2015		SeqNo: 915333		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	60.2	40.2	107			
4-Chloro-3-methylphenol	130	10	200.0	0	67.2	48.2	107			
2-Chlorophenol	130	10	200.0	0	62.5	42.5	106			
1,4-Dichlorobenzene	49	10	100.0	0	48.6	31.6	111			
2,4-Dinitrotoluene	59	10	100.0	0	59.1	33.6	86.5			
N-Nitrosodi-n-propylamine	61	10	100.0	0	61.3	44	106			
4-Nitrophenol	95	10	200.0	0	47.5	25.5	109			
Pentachlorophenol	110	20	200.0	0	55.1	38.8	97.8			
Phenol	71	10	200.0	0	35.4	22.7	116			
Pyrene	87	10	100.0	0	87.4	29.3	138			
1,2,4-Trichlorobenzene	59	10	100.0	0	58.9	35.3	123			
Surr: 2-Fluorophenol	87		200.0		43.7	4.63	113			
Surr: Phenol-d5	69		200.0		34.6	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		66.4	5.14	132			
Surr: Nitrobenzene-d5	61		100.0		61.0	9.13	140			
Surr: 2-Fluorobiphenyl	55		100.0		54.9	10.8	132			
Surr: 4-Terphenyl-d14	40		100.0		40.0	12.9	107			

Sample ID	1511106-005cms	SampType: MS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-34	Batch ID: 22200			RunNo: 30040					
Prep Date:	11/5/2015	Analysis Date: 11/5/2015			SeqNo: 915343		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	67.1	46.4	121			
4-Chloro-3-methylphenol	140	10	200.0	0	72.3	45.3	135			
2-Chlorophenol	130	10	200.0	0	64.1	28.7	129			
1,4-Dichlorobenzene	51	10	100.0	0	51.1	42.6	104			
2,4-Dinitrotoluene	62	10	100.0	0	62.5	28.9	126			
N-Nitrosodi-n-propylamine	63	10	100.0	0	62.8	49.2	117			
4-Nitrophenol	60	10	200.0	0	30.0	18.1	97.2			
Pentachlorophenol	98	20	200.0	0	48.8	24.8	127			
Phenol	66	10	200.0	0	32.9	17.9	93.6			
Pyrene	73	10	100.0	0	73.4	29.6	142			
1,2,4-Trichlorobenzene	59	10	100.0	0	58.6	39.5	109			
Surr: 2-Fluorophenol	82		200.0		41.2	4.63	113			
Surr: Phenol-d5	62		200.0		31.1	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		64.4	5.14	132			
Surr: Nitrobenzene-d5	62		100.0		62.1	9.13	140			
Surr: 2-Fluorobiphenyl	61		100.0		61.3	10.8	132			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511106

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	1511106-005cms	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-34	Batch ID:	22200	RunNo:	30040					
Prep Date:	11/5/2015	Analysis Date:	11/5/2015	SeqNo:	915343	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	35		100.0		34.5	12.9	107			

Sample ID	1511106-005cmsd	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-34	Batch ID:	22200	RunNo:	30040					
Prep Date:	11/5/2015	Analysis Date:	11/5/2015	SeqNo:	915344	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.3	46.4	121	7.44	31.3	
4-Chloro-3-methylphenol	130	10	200.0	0	66.3	45.3	135	8.72	29	
2-Chlorophenol	140	10	200.0	0	70.6	28.7	129	9.72	28.4	
1,4-Dichlorobenzene	56	10	100.0	0	56.3	42.6	104	9.61	28.2	
2,4-Dinitrotoluene	57	10	100.0	0	57.0	28.9	126	9.17	22.9	
N-Nitrosodi-n-propylamine	71	10	100.0	0	71.2	49.2	117	12.5	28.8	
4-Nitrophenol	79	10	200.0	0	39.5	18.1	97.2	27.6	41.5	
Pentachlorophenol	120	20	200.0	0	60.7	24.8	127	21.7	45.1	
Phenol	76	10	200.0	0	38.1	17.9	93.6	14.8	33.9	
Pyrene	67	10	100.0	0	66.7	29.6	142	9.54	33.6	
1,2,4-Trichlorobenzene	61	10	100.0	0	61.2	39.5	109	4.27	28.2	
Surr: 2-Fluorophenol	100		200.0		49.8	4.63	113	0	0	
Surr: Phenol-d5	75		200.0		37.4	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	150		200.0		74.0	5.14	132	0	0	
Surr: Nitrobenzene-d5	66		100.0		65.6	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.9	10.8	132	0	0	
Surr: 4-Terphenyl-d14	36		100.0		35.8	12.9	107	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1511106

RcptNo: 1

Received by/date: *CS 11/03/15*

Logged By: Anne Thorne

11/3/2015 4:20:00 PM

Anne Thorne

Completed By: Anne Thorne

11/4/2015

Anne Thorne

Reviewed By:

11/04/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? *Ja 11/04/15* Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? *ice* Yes ☒ No ☒ *Remarks* NA ☐
9. Was preservative added to bottles? *Ja 11/04/15 @ 1007* Yes ☒ No ☒
10. VOA vials have zero headspace? *For metals analysis: Added 1mL H₂O₃ to -007E, -003E For acceptable pH. for Added 0.4mL H₂O₃ to -007F For acceptable pH.* Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: *24*
(2 or >12 unless noted)
Adjusted? *Yes*

Checked by: *Ja*

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks: *For metals analysis: Added 2mL H₂O₃ to -007E For acceptable pH.*

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.1	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 08, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4th QTR MKTF WELLS

OrderNo.: 1511256

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/5/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 2:48:00 PM

Lab ID: 1511256-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	0.012	0.0050	*	mg/L	5	11/22/2015 5:47:14 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 7:45:04 PM	E30317
Selenium	ND	0.020		mg/L	20	11/25/2015 7:27:16 PM	F30497
Uranium	0.0023	0.00050		mg/L	1	11/18/2015 7:45:04 PM	E30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.96	0.50		mg/L	5	11/6/2015 7:51:02 PM	R30103
Chloride	300	10		mg/L	20	11/6/2015 8:03:27 PM	R30103
Bromide	2.4	0.50		mg/L	5	11/6/2015 7:51:02 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/6/2015 7:51:02 PM	R30103
Sulfate	3.0	2.5		mg/L	5	11/6/2015 7:51:02 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 3:47:01 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	3.1	0.010	*	mg/L	5	11/18/2015 4:50:25 PM	A30311
Cadmium	ND	0.0020		mg/L	1	11/17/2015 5:09:23 PM	A30284
Calcium	130	5.0		mg/L	5	11/18/2015 4:50:25 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 5:09:23 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:48:48 PM	A30311
Iron	13	0.40	*	mg/L	20	11/18/2015 4:52:10 PM	A30311
Magnesium	31	1.0		mg/L	1	11/17/2015 5:09:23 PM	A30284
Manganese	1.5	0.010	*	mg/L	5	11/18/2015 4:50:25 PM	A30311
Potassium	ND	1.0		mg/L	1	11/17/2015 5:09:23 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 5:09:23 PM	A30284
Sodium	390	5.0		mg/L	5	11/18/2015 4:50:25 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:48:48 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	3.4	0.010	*	mg/L	5	11/17/2015 4:05:02 PM	22281
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:00:00 PM	22281
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:00:00 PM	22281
Copper	ND	0.0060		mg/L	1	11/17/2015 4:00:00 PM	22281
Iron	16	0.40	*	mg/L	20	11/17/2015 4:10:29 PM	22281
Manganese	1.7	0.010	*	mg/L	5	11/17/2015 4:05:02 PM	22281
Silver	ND	0.0050		mg/L	1	11/18/2015 12:43:09 PM	22281
Zinc	0.012	0.010		mg/L	1	11/17/2015 4:00:00 PM	22281
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.014	0.0050	*	mg/L	5	11/17/2015 2:08:42 PM	22281
Lead	0.0063	0.00050		mg/L	1	11/17/2015 2:05:41 PM	22281
Selenium	0.016	0.0050		mg/L	5	11/17/2015 2:08:42 PM	22281

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 2:48:00 PM

Lab ID: 1511256-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.0019	0.00050		mg/L	1	11/17/2015 2:05:41 PM	22281
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:05:13 PM	22333
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	3.0	1.0		mg/L	1	11/9/2015 3:36:43 PM	22221
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/9/2015 3:36:43 PM	22221
Surr: DNOP	110	72-136		%REC	1	11/9/2015 3:36:43 PM	22221
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	8.6	0.50		mg/L	10	11/6/2015 10:45:07 AM	R30083
Surr: BFB	116	57.8-137		%REC	10	11/6/2015 10:45:07 AM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Aniline	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 5:15:21 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Carbazole	19	10		µg/L	1	11/12/2015 5:15:21 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 2:48:00 PM

Lab ID: 1511256-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 5:15:21 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 5:15:21 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 5:15:21 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
1-Methylnaphthalene	150	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2-Methylnaphthalene	160	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Naphthalene	270	20	D	µg/L	2	11/13/2015 5:22:53 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 5:15:21 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 2:48:00 PM

Lab ID: 1511256-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 5:15:21 PM	22238
Surr: 2-Fluorophenol	66.8	4.63-113		%REC	1	11/12/2015 5:15:21 PM	22238
Surr: Phenol-d5	62.9	4.13-124		%REC	1	11/12/2015 5:15:21 PM	22238
Surr: 2,4,6-Tribromophenol	87.8	5.14-132		%REC	1	11/12/2015 5:15:21 PM	22238
Surr: Nitrobenzene-d5	78.6	9.13-140		%REC	1	11/12/2015 5:15:21 PM	22238
Surr: 2-Fluorobiphenyl	98.9	10.8-132		%REC	1	11/12/2015 5:15:21 PM	22238
Surr: 4-Terphenyl-d14	61.3	12.9-107		%REC	1	11/12/2015 5:15:21 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	380	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Toluene	15	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Ethylbenzene	700	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Methyl tert-butyl ether (MTBE)	1500	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2,4-Trimethylbenzene	430	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,3,5-Trimethylbenzene	53	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Naphthalene	340	20		µg/L	10	11/6/2015 10:16:53 PM	R30086
1-Methylnaphthalene	210	40		µg/L	10	11/6/2015 10:16:53 PM	R30086
2-Methylnaphthalene	180	40		µg/L	10	11/6/2015 10:16:53 PM	R30086
Acetone	ND	100		µg/L	10	11/6/2015 10:16:53 PM	R30086
Bromobenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Bromodichloromethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Bromoform	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Bromomethane	ND	30		µg/L	10	11/6/2015 10:16:53 PM	R30086
2-Butanone	ND	100		µg/L	10	11/6/2015 10:16:53 PM	R30086
Carbon disulfide	ND	100		µg/L	10	11/6/2015 10:16:53 PM	R30086
Carbon Tetrachloride	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Chlorobenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Chloroethane	ND	20		µg/L	10	11/6/2015 10:16:53 PM	R30086
Chloroform	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Chloromethane	ND	30		µg/L	10	11/6/2015 10:16:53 PM	R30086
2-Chlorotoluene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
4-Chlorotoluene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
cis-1,2-DCE	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 2:48:00 PM

Lab ID: 1511256-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/6/2015 10:16:53 PM	R30086
Dibromochloromethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Dibromomethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2-Dichlorobenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,3-Dichlorobenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,4-Dichlorobenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Dichlorodifluoromethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,1-Dichloroethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,1-Dichloroethene	20	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2-Dichloropropane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,3-Dichloropropane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
2,2-Dichloropropane	ND	20		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,1-Dichloropropene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Hexachlorobutadiene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
2-Hexanone	ND	100		µg/L	10	11/6/2015 10:16:53 PM	R30086
Isopropylbenzene	33	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
4-Isopropyltoluene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
4-Methyl-2-pentanone	ND	100		µg/L	10	11/6/2015 10:16:53 PM	R30086
Methylene Chloride	ND	30		µg/L	10	11/6/2015 10:16:53 PM	R30086
n-Butylbenzene	ND	30		µg/L	10	11/6/2015 10:16:53 PM	R30086
n-Propylbenzene	67	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
sec-Butylbenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Styrene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
tert-Butylbenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/6/2015 10:16:53 PM	R30086
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
trans-1,2-DCE	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,1,1-Trichloroethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,1,2-Trichloroethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Trichloroethene (TCE)	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Trichlorofluoromethane	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
1,2,3-Trichloropropane	ND	20		µg/L	10	11/6/2015 10:16:53 PM	R30086
Vinyl chloride	ND	10		µg/L	10	11/6/2015 10:16:53 PM	R30086
Xylenes, Total	780	15		µg/L	10	11/6/2015 10:16:53 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 2:48:00 PM

Lab ID: 1511256-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%REC	10	11/6/2015 10:16:53 PM	R30086
Surr: 4-Bromofluorobenzene	86.2	70-130		%REC	10	11/6/2015 10:16:53 PM	R30086
Surr: Dibromofluoromethane	94.8	70-130		%REC	10	11/6/2015 10:16:53 PM	R30086
Surr: Toluene-d8	94.9	70-130		%REC	10	11/6/2015 10:16:53 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 3:40:00 PM

Lab ID: 1511256-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	0.016	0.0050	*	mg/L	5	11/22/2015 5:56:28 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 7:48:07 PM	E30317
Selenium	0.019	0.0050		mg/L	5	11/22/2015 5:56:28 PM	C30411
Uranium	ND	0.00050		mg/L	1	11/18/2015 7:48:07 PM	E30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.88	0.50		mg/L	5	11/6/2015 8:40:41 PM	R30103
Chloride	1000	50		mg/L	100	11/19/2015 2:01:12 AM	A30349
Bromide	2.8	0.50		mg/L	5	11/6/2015 8:40:41 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/6/2015 8:40:41 PM	R30103
Sulfate	ND	2.5		mg/L	5	11/6/2015 8:40:41 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 3:59:26 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	3.1	0.020	*	mg/L	10	11/18/2015 4:55:46 PM	A30311
Cadmium	ND	0.0020		mg/L	1	11/17/2015 5:11:06 PM	A30284
Calcium	150	10		mg/L	10	11/18/2015 4:55:46 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 5:11:06 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:54:04 PM	A30311
Iron	13	0.40	*	mg/L	20	11/19/2015 3:20:03 PM	A30352
Magnesium	39	1.0		mg/L	1	11/17/2015 5:11:06 PM	A30284
Manganese	3.9	0.020	*	mg/L	10	11/18/2015 4:55:46 PM	A30311
Potassium	2.5	1.0		mg/L	1	11/17/2015 5:11:06 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 5:11:06 PM	A30284
Sodium	780	10		mg/L	10	11/18/2015 4:55:46 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:54:04 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	3.0	0.010	*	mg/L	5	11/17/2015 4:19:45 PM	22281
Cadmium	ND	0.0020		mg/L	1	11/17/2015 4:18:01 PM	22281
Chromium	ND	0.0060		mg/L	1	11/17/2015 4:18:01 PM	22281
Copper	ND	0.0060		mg/L	1	11/17/2015 4:18:01 PM	22281
Iron	13	0.40	*	mg/L	20	11/17/2015 4:21:31 PM	22281
Manganese	3.9	0.010	*	mg/L	5	11/17/2015 4:19:45 PM	22281
Silver	ND	0.0050		mg/L	1	11/17/2015 4:18:01 PM	22281
Zinc	0.023	0.010		mg/L	1	11/17/2015 4:18:01 PM	22281
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.018	0.0050	*	mg/L	5	11/17/2015 2:26:49 PM	22281
Lead	0.0027	0.00050		mg/L	1	11/17/2015 2:11:42 PM	22281
Selenium	0.021	0.0050		mg/L	5	11/17/2015 2:26:49 PM	22281

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 3:40:00 PM

Lab ID: 1511256-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.00053	0.00050		mg/L	1	11/17/2015 2:11:42 PM	22281
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:07:16 PM	22333
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	3.1	1.0		mg/L	1	11/9/2015 4:03:52 PM	22221
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/9/2015 4:03:52 PM	22221
Surr: DNOP	102	72-136		%REC	1	11/9/2015 4:03:52 PM	22221
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	91	5.0		mg/L	100	11/6/2015 11:59:09 AM	R30083
Surr: BFB	84.5	57.8-137		%REC	100	11/6/2015 11:59:09 AM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Aniline	20	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 5:45:25 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 3:40:00 PM

Lab ID: 1511256-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 5:45:25 PM	22238
2,4-Dimethylphenol	120	10		µg/L	1	11/12/2015 5:45:25 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 5:45:25 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 5:45:25 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
1-Methylnaphthalene	35	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2-Methylnaphthalene	46	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2-Methylphenol	81	10		µg/L	1	11/12/2015 5:45:25 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Naphthalene	130	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 5:45:25 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 3:40:00 PM

Lab ID: 1511256-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	57	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 5:45:25 PM	22238
Surr: 2-Fluorophenol	32.8	4.63-113		%REC	1	11/12/2015 5:45:25 PM	22238
Surr: Phenol-d5	47.8	4.13-124		%REC	1	11/12/2015 5:45:25 PM	22238
Surr: 2,4,6-Tribromophenol	77.1	5.14-132		%REC	1	11/12/2015 5:45:25 PM	22238
Surr: Nitrobenzene-d5	89.4	9.13-140		%REC	1	11/12/2015 5:45:25 PM	22238
Surr: 2-Fluorobiphenyl	95.9	10.8-132		%REC	1	11/12/2015 5:45:25 PM	22238
Surr: 4-Terphenyl-d14	58.5	12.9-107		%REC	1	11/12/2015 5:45:25 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	28000	500		µg/L	500	11/6/2015 10:45:31 PM	R30086
Toluene	620	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Ethylbenzene	1700	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Methyl tert-butyl ether (MTBE)	1700	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2,4-Trimethylbenzene	1100	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,3,5-Trimethylbenzene	330	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Naphthalene	200	100		µg/L	50	11/6/2015 11:14:08 PM	R30086
1-Methylnaphthalene	ND	200		µg/L	50	11/6/2015 11:14:08 PM	R30086
2-Methylnaphthalene	ND	200		µg/L	50	11/6/2015 11:14:08 PM	R30086
Acetone	ND	500		µg/L	50	11/6/2015 11:14:08 PM	R30086
Bromobenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Bromodichloromethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Bromoform	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Bromomethane	ND	150		µg/L	50	11/6/2015 11:14:08 PM	R30086
2-Butanone	ND	500		µg/L	50	11/6/2015 11:14:08 PM	R30086
Carbon disulfide	ND	500		µg/L	50	11/6/2015 11:14:08 PM	R30086
Carbon Tetrachloride	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Chlorobenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Chloroethane	ND	100		µg/L	50	11/6/2015 11:14:08 PM	R30086
Chloroform	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Chloromethane	ND	150		µg/L	50	11/6/2015 11:14:08 PM	R30086
2-Chlorotoluene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
4-Chlorotoluene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
cis-1,2-DCE	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 3:40:00 PM

Lab ID: 1511256-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/6/2015 11:14:08 PM	R30086
Dibromochloromethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Dibromomethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2-Dichlorobenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,3-Dichlorobenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,4-Dichlorobenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Dichlorodifluoromethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,1-Dichloroethane	61	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,1-Dichloroethene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2-Dichloropropane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,3-Dichloropropane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
2,2-Dichloropropane	ND	100		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,1-Dichloropropene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Hexachlorobutadiene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
2-Hexanone	ND	500		µg/L	50	11/6/2015 11:14:08 PM	R30086
Isopropylbenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
4-Isopropyltoluene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
4-Methyl-2-pentanone	ND	500		µg/L	50	11/6/2015 11:14:08 PM	R30086
Methylene Chloride	ND	150		µg/L	50	11/6/2015 11:14:08 PM	R30086
n-Butylbenzene	ND	150		µg/L	50	11/6/2015 11:14:08 PM	R30086
n-Propylbenzene	92	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
sec-Butylbenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Styrene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
tert-Butylbenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/6/2015 11:14:08 PM	R30086
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
trans-1,2-DCE	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,1,1-Trichloroethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,1,2-Trichloroethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Trichloroethene (TCE)	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Trichlorofluoromethane	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
1,2,3-Trichloropropane	ND	100		µg/L	50	11/6/2015 11:14:08 PM	R30086
Vinyl chloride	ND	50		µg/L	50	11/6/2015 11:14:08 PM	R30086
Xylenes, Total	6600	75		µg/L	50	11/6/2015 11:14:08 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511256

Date Reported: 12/8/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/3/2015 3:40:00 PM

Lab ID: 1511256-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	50	11/6/2015 11:14:08 PM	R30086
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	50	11/6/2015 11:14:08 PM	R30086
Surr: Dibromofluoromethane	95.4	70-130		%REC	50	11/6/2015 11:14:08 PM	R30086
Surr: Toluene-d8	96.3	70-130		%REC	50	11/6/2015 11:14:08 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-A		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A30284		RunNo:	30284			
Prep Date:			Analysis Date:	11/17/2015		SeqNo:	923644	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID	LCS-A		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A30284		RunNo:	30284			
Prep Date:			Analysis Date:	11/17/2015		SeqNo:	923645	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Magnesium	49	1.0	50.00	0	97.9	85	115			
Potassium	49	1.0	50.00	0	98.3	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			

Sample ID	LLLCS-A		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A30284		RunNo:	30284			
Prep Date:			Analysis Date:	11/17/2015		SeqNo:	923646	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Chromium	0.0075	0.0060	0.006000	0	124	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Potassium	ND	1.0	0.5000	0	83.7	50	150			
Silver	ND	0.0050	0.005000	0	95.8	50	150			

Sample ID	MB-A		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A30311		RunNo:	30311			
Prep Date:			Analysis Date:	11/18/2015		SeqNo:	924769	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Sodium	ND	1.0								
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID LCS-A	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: A30311			RunNo: 30311						
Prep Date:	Analysis Date: 11/18/2015			SeqNo: 924770		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.4	85	115			
Calcium	49	1.0	50.00	0	99.0	85	115			
Copper	0.49	0.0060	0.5000	0	98.7	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.48	0.0020	0.5000	0	95.3	85	115			
Sodium	48	1.0	50.00	0	96.4	85	115			
Zinc	0.48	0.010	0.5000	0	96.4	85	115			

Sample ID LLCS-A	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: A30311			RunNo: 30311						
Prep Date:	Analysis Date: 11/18/2015			SeqNo: 924771		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	108	50	150			
Copper	0.0064	0.0060	0.006000	0	108	50	150			
Iron	0.026	0.020	0.02000	0	129	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Sodium	ND	1.0	0.5000	0	95.9	50	150			

Sample ID LLCS-A	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: A30311			RunNo: 30311						
Prep Date:	Analysis Date: 11/18/2015			SeqNo: 924962		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	108	50	150			

Sample ID MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: A30352			RunNo: 30352						
Prep Date:	Analysis Date: 11/19/2015			SeqNo: 926391		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID LCS-A	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: A30352			RunNo: 30352						
Prep Date:	Analysis Date: 11/19/2015			SeqNo: 926392		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	95.9	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LLLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30352		RunNo: 30352					
Prep Date:			Analysis Date: 11/19/2015		SeqNo: 926393		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020	0.02000	0	99.7	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22281		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	22281		RunNo:	30187			
Prep Date:	11/10/2015		Analysis Date:	11/12/2015		SeqNo:	920683		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LLCS-22281		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	22281		RunNo:	30187			
Prep Date:	11/10/2015		Analysis Date:	11/12/2015		SeqNo:	920684		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0025	0.0020	0.002000	0	126	50	150			
Cadmium	ND	0.0020	0.002000	0	91.5	50	150			
Chromium	0.0060	0.0060	0.006000	0	100	50	150			
Copper	0.0072	0.0060	0.006000	0	119	50	150			
Iron	ND	0.020	0.02000	0	64.3	50	150			
Manganese	ND	0.0020	0.002000	0	97.5	50	150			
Silver	ND	0.0050	0.005000	0	94.2	50	150			
Zinc	ND	0.010	0.005000	0	109	50	150			

Sample ID	LCS-22281		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	22281		RunNo:	30187			
Prep Date:	11/10/2015		Analysis Date:	11/12/2015		SeqNo:	920685		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.4	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Copper	0.49	0.0060	0.5000	0	97.9	85	115			
Iron	0.47	0.020	0.5000	0	94.0	85	115			
Manganese	0.48	0.0020	0.5000	0	95.5	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.47	0.010	0.5000	0	94.2	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511256-001EMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-4		Batch ID:	22281		RunNo:	30284			
Prep Date:	11/10/2015		Analysis Date:	11/17/2015		SeqNo:	924048		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.49	0.0060	0.5000	0	97.3	70	130			
Copper	0.55	0.0060	0.5000	0	110	70	130			
Zinc	0.47	0.010	0.5000	0.01194	92.3	70	130			

Sample ID	1511256-001EMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-4		Batch ID:	22281		RunNo:	30284			
Prep Date:	11/10/2015		Analysis Date:	11/17/2015		SeqNo:	924049		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	70	130	0.0299	20	
Chromium	0.48	0.0060	0.5000	0	97.0	70	130	0.329	20	
Copper	0.55	0.0060	0.5000	0	109	70	130	0.814	20	
Zinc	0.47	0.010	0.5000	0.01194	91.9	70	130	0.474	20	

Sample ID	1511256-001EMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-4		Batch ID:	22281		RunNo:	30284			
Prep Date:	11/10/2015		Analysis Date:	11/17/2015		SeqNo:	924051		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.9	0.010	0.5000	3.422	89.1	70	130			
Manganese	2.1	0.010	0.5000	1.661	87.9	70	130			

Sample ID	1511256-001EMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-4		Batch ID:	22281		RunNo:	30284			
Prep Date:	11/10/2015		Analysis Date:	11/17/2015		SeqNo:	924052		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.9	0.010	0.5000	3.422	98.3	70	130	1.18	20	
Manganese	2.1	0.010	0.5000	1.661	93.4	70	130	1.29	20	

Sample ID	1511256-001EMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-4		Batch ID:	22281		RunNo:	30311			
Prep Date:	11/10/2015		Analysis Date:	11/18/2015		SeqNo:	924972		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511256-001EMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	MKTF-4	Batch ID:	22281	RunNo:	30311					
Prep Date:	11/10/2015	Analysis Date:	11/18/2015	SeqNo:	924973	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.088	0.0050	0.1000	0	88.3	70	130	16.3	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: E30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926092		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	93.6	85	115			
Uranium	0.012	0.00050	0.01250	0	94.5	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: E30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926095		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00060	0.00050	0.0005000	0	120	50	150			
Uranium	ND	0.00050	0.0005000	0	97.7	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: E30317			RunNo: 30317					
Prep Date:		Analysis Date: 11/18/2015			SeqNo: 926098		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928161		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928162		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.8	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: C30411			RunNo: 30411					
Prep Date:		Analysis Date: 11/22/2015			SeqNo: 928163		Units: mg/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals
Client ID:	PBW	Batch ID:	C30411	RunNo:	30411
Prep Date:		Analysis Date:	11/22/2015	SeqNo:	928163 Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Arsenic	ND	0.0010			
Selenium	ND	0.0010			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals
Client ID:	LCSW	Batch ID:	F30497	RunNo:	30497
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931125 Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Selenium	0.023	0.0010	0.02500	0	91.5 85 115

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals
Client ID:	BatchQC	Batch ID:	F30497	RunNo:	30497
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931128 Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Selenium	ND	0.0010	0.001000	0	92.4 50 150

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals
Client ID:	PBW	Batch ID:	F30497	RunNo:	30497
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931131 Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Selenium	ND	0.0010			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22281		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	22281		RunNo:	30208			
Prep Date:	11/10/2015		Analysis Date:	11/12/2015		SeqNo:	920659		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22281		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	22281		RunNo:	30208			
Prep Date:	11/10/2015		Analysis Date:	11/12/2015		SeqNo:	920662		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.3	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	95.7	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	MSLLLCS		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	22281		RunNo:	30208			
Prep Date:	11/10/2015		Analysis Date:	11/12/2015		SeqNo:	920665		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Lead	ND	0.00050	0.0005000	0	96.0	50	150			
Selenium	ND	0.0010	0.001000	0	80.5	50	150			
Uranium	0.00051	0.00050	0.0005000	0	101	50	150			

Sample ID	1511256-002EMSL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-16		Batch ID:	22281		RunNo:	30297			
Prep Date:	11/10/2015		Analysis Date:	11/17/2015		SeqNo:	924241		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.042	0.0050	0.02500	0.01769	97.3	70	130			
Selenium	0.044	0.0050	0.02500	0.02147	88.7	70	130			

Sample ID	1511256-002EMSL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-16		Batch ID:	22281		RunNo:	30297			
Prep Date:	11/10/2015		Analysis Date:	11/17/2015		SeqNo:	924242		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.00050	0.01250	0.002713	113	70	130			
Uranium	0.016	0.00050	0.01250	0.0005253	127	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22333		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22333		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921268		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-22333			SampType:	LCS		TestCode:	EPA Method 245.1: Mercury			
Client ID:	LCSW			Batch ID:	22333		RunNo:	30233			
Prep Date:	11/13/2015			Analysis Date:	11/13/2015		SeqNo:	921269		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0056	0.00020	0.005000	0	112	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30096	RunNo:	30096					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916771	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30096	RunNo:	30096					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916772	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30103	RunNo:	30103					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916918	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30103	RunNo:	30103					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916919	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.5	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A30349	RunNo:	30349					
Prep Date:		Analysis Date:	11/18/2015	SeqNo:	926274	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: A30349		RunNo: 30349					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926275		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22221	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID:	22221	RunNo:	30094					
Prep Date:	11/9/2015	Analysis Date:	11/9/2015	SeqNo:	917155	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		120	72	136			

Sample ID	LCS-22221	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW	Batch ID:	22221	RunNo:	30094					
Prep Date:	11/9/2015	Analysis Date:	11/9/2015	SeqNo:	917156	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	52.4	154			
Surr: DNOP	0.58		0.5000		117	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R30083		RunNo: 30083					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916424		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		78.0	57.8	137			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R30083		RunNo: 30083					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916425		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.0	80	120			
Surr: BFB	19		20.00		95.4	57.8	137			

Sample ID	1511256-001GMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-4		Batch ID: R30083		RunNo: 30083					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916427		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	0.50	5.000	8.614	105	70	130			
Surr: BFB	250		200.0		124	57.8	137			

Sample ID	1511256-001GMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-4		Batch ID: R30083		RunNo: 30083					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916428		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	0.50	5.000	8.614	104	70	130	0.651	20	
Surr: BFB	250		200.0		124	57.8	137	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	100ng lcs3		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R30086		RunNo: 30086					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916525		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		99.9	70	130			

Sample ID	rb3		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW		Batch ID: R30086		RunNo: 30086					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916527		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30086			RunNo: 30086					
Prep Date:		Analysis Date: 11/6/2015			SeqNo: 916527		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30086	RunNo:	30086					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916527	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	mb-22238	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	22238	RunNo:	30112					
Prep Date:	11/9/2015	Analysis Date:	11/9/2015	SeqNo:	917465	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	mb-22238	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	22238	RunNo:	30112					
Prep Date:	11/9/2015	Analysis Date:	11/9/2015	SeqNo:	917465	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	150		200.0		76.3	4.63	113			
Surr: Phenol-d5	150		200.0		76.9	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	5.14	132			
Surr: Nitrobenzene-d5	78		100.0		77.8	9.13	140			
Surr: 2-Fluorobiphenyl	84		100.0		84.5	10.8	132			
Surr: 4-Terphenyl-d14	48		100.0		47.8	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511256

08-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	Ics-22238		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 22238		RunNo: 30112					
Prep Date:	11/9/2015		Analysis Date: 11/9/2015		SeqNo: 917466		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	75	10	100.0	0	75.3	40.2	107			
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	48.2	107			
2-Chlorophenol	170	10	200.0	0	85.2	42.5	106			
1,4-Dichlorobenzene	74	10	100.0	0	73.8	31.6	111			
2,4-Dinitrotoluene	63	10	100.0	0	62.7	33.6	86.5			
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.5	44	106			
4-Nitrophenol	130	10	200.0	0	66.7	25.5	109			
Pentachlorophenol	110	20	200.0	0	57.4	38.8	97.8			
Phenol	160	10	200.0	0	80.8	22.7	116			
Pyrene	87	10	100.0	0	87.0	29.3	138			
1,2,4-Trichlorobenzene	86	10	100.0	0	85.7	35.3	123			
Surr: 2-Fluorophenol	140		200.0		72.2	4.63	113			
Surr: Phenol-d5	160		200.0		78.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		75.5	5.14	132			
Surr: Nitrobenzene-d5	78		100.0		78.4	9.13	140			
Surr: 2-Fluorobiphenyl	77		100.0		77.1	10.8	132			
Surr: 4-Terphenyl-d14	51		100.0		50.7	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1511256

RcptNo: 1

Received by/date:

CS 11/05/15

Logged By: Celina Sessa

11/5/2015 3:50:00 PM

Celina Sessa

Completed By: Celina Sessa

11/5/2015 4:28:56 PM

Celina Sessa

Reviewed By:

CS

11/06/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 12
(≥ 2 or >12 unless noted)
Adjusted? Yes
Checked by: *CS*

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 09, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4th QTR MKTF WELLS

OrderNo.: 1511257

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/5/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1511257
Date: 12/9/2015

CLIENT: Western Refining Southwest, Gallup
Project: 2015 4th QTR MKTF WELLS

Analytical Notes Regarding EPA Method 8270:

Sample MKTF-43 had low surrogate recoveries. The sample was reextracted, past the holding time, and reanalyzed. The nondetect results are confirmed by this reanalysis.

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:12:00 AM

Lab ID: 1511257-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 5:59:31 PM	C30411
Lead	0.0017	0.00050		mg/L	1	11/18/2015 7:57:21 PM	E30317
Selenium	0.0078	0.0050		mg/L	5	11/22/2015 5:59:31 PM	C30411
Uranium	0.030	0.0025	*	mg/L	5	12/2/2015 5:14:26 PM	A30584
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.10		mg/L	1	11/13/2015 12:11:31 AM	R30221
Chloride	750	25		mg/L	50	11/19/2015 8:55:38 PM	R30360
Bromide	1.0	0.10		mg/L	1	11/13/2015 12:11:31 AM	R30221
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/13/2015 12:11:31 AM	R30221
Sulfate	35	0.50		mg/L	1	11/13/2015 12:11:31 AM	R30221
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/13/2015 2:40:27 AM	R30221
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.34	0.0020		mg/L	1	11/17/2015 5:12:48 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 5:12:48 PM	A30284
Calcium	140	10		mg/L	10	11/18/2015 4:59:41 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 5:12:48 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 4:57:46 PM	A30311
Iron	0.40	0.020	*	mg/L	1	11/17/2015 5:12:48 PM	A30284
Magnesium	24	1.0		mg/L	1	11/17/2015 5:12:48 PM	A30284
Manganese	3.2	0.020	*	mg/L	10	11/18/2015 4:59:41 PM	A30311
Potassium	1.2	1.0		mg/L	1	11/17/2015 5:12:48 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 5:12:48 PM	A30284
Sodium	630	10		mg/L	10	11/18/2015 4:59:41 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 4:57:46 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.81	0.010		mg/L	5	11/18/2015 12:48:15 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:44:27 PM	22253
Chromium	0.0075	0.0060		mg/L	1	11/17/2015 2:44:27 PM	22253
Copper	0.019	0.0060		mg/L	1	11/17/2015 2:44:27 PM	22253
Iron	7.9	0.20	*	mg/L	10	11/18/2015 12:53:47 PM	22253
Manganese	3.9	0.010	*	mg/L	5	11/18/2015 12:48:15 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 2:44:27 PM	22253
Zinc	0.021	0.010		mg/L	1	11/17/2015 2:44:27 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0049	0.0010		mg/L	1	11/17/2015 2:35:51 PM	22253
Lead	0.019	0.00050	*	mg/L	1	11/17/2015 2:35:51 PM	22253
Selenium	0.0076	0.0050		mg/L	5	11/17/2015 2:38:52 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:12:00 AM

Lab ID: 1511257-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.033	0.0025	*	mg/L	5	11/17/2015 2:38:52 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:09:20 PM	22333
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	1.2	1.0		mg/L	1	11/9/2015 4:31:07 PM	22221
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/9/2015 4:31:07 PM	22221
Surr: DNOP	107	72-136		%REC	1	11/9/2015 4:31:07 PM	22221
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	12	1.0		mg/L	20	11/6/2015 12:23:46 PM	R30083
Surr: BFB	98.9	57.8-137		%REC	20	11/6/2015 12:23:46 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Aniline	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 6:15:33 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:12:00 AM

Lab ID: 1511257-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 6:15:33 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 6:15:33 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 6:15:33 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Naphthalene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 6:15:33 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:12:00 AM

Lab ID: 1511257-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 6:15:33 PM	22238
Surr: 2-Fluorophenol	77.4	4.63-113		%REC	1	11/12/2015 6:15:33 PM	22238
Surr: Phenol-d5	74.6	4.13-124		%REC	1	11/12/2015 6:15:33 PM	22238
Surr: 2,4,6-Tribromophenol	115	5.14-132		%REC	1	11/12/2015 6:15:33 PM	22238
Surr: Nitrobenzene-d5	93.7	9.13-140		%REC	1	11/12/2015 6:15:33 PM	22238
Surr: 2-Fluorobiphenyl	120	10.8-132		%REC	1	11/12/2015 6:15:33 PM	22238
Surr: 4-Terphenyl-d14	77.3	12.9-107		%REC	1	11/12/2015 6:15:33 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	1100	50		µg/L	50	11/9/2015 2:02:43 PM	R30121
Toluene	8.7	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Ethylbenzene	140	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Methyl tert-butyl ether (MTBE)	250	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2,4-Trimethylbenzene	5.6	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2-Dichloroethane (EDC)	13	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Naphthalene	ND	10		µg/L	5	11/9/2015 2:31:30 PM	R30121
1-Methylnaphthalene	ND	20		µg/L	5	11/9/2015 2:31:30 PM	R30121
2-Methylnaphthalene	ND	20		µg/L	5	11/9/2015 2:31:30 PM	R30121
Acetone	ND	50		µg/L	5	11/9/2015 2:31:30 PM	R30121
Bromobenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Bromodichloromethane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Bromoform	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Bromomethane	ND	15		µg/L	5	11/9/2015 2:31:30 PM	R30121
2-Butanone	ND	50		µg/L	5	11/9/2015 2:31:30 PM	R30121
Carbon disulfide	ND	50		µg/L	5	11/9/2015 2:31:30 PM	R30121
Carbon Tetrachloride	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Chlorobenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Chloroethane	ND	10		µg/L	5	11/9/2015 2:31:30 PM	R30121
Chloroform	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Chloromethane	ND	15		µg/L	5	11/9/2015 2:31:30 PM	R30121
2-Chlorotoluene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
4-Chlorotoluene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
cis-1,2-DCE	49	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:12:00 AM

Lab ID: 1511257-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/9/2015 2:31:30 PM	R30121
Dibromochloromethane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Dibromomethane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,1-Dichloroethane	300	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,1-Dichloroethene	130	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2-Dichloropropane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,3-Dichloropropane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
2,2-Dichloropropane	ND	10		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,1-Dichloropropene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Hexachlorobutadiene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
2-Hexanone	ND	50		µg/L	5	11/9/2015 2:31:30 PM	R30121
Isopropylbenzene	49	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
4-Isopropyltoluene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
4-Methyl-2-pentanone	ND	50		µg/L	5	11/9/2015 2:31:30 PM	R30121
Methylene Chloride	ND	15		µg/L	5	11/9/2015 2:31:30 PM	R30121
n-Butylbenzene	16	15		µg/L	5	11/9/2015 2:31:30 PM	R30121
n-Propylbenzene	44	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
sec-Butylbenzene	8.4	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Styrene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
tert-Butylbenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/9/2015 2:31:30 PM	R30121
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
trans-1,2-DCE	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,1,1-Trichloroethane	45	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Trichloroethene (TCE)	36	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Trichlorofluoromethane	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
1,2,3-Trichloropropane	ND	10		µg/L	5	11/9/2015 2:31:30 PM	R30121
Vinyl chloride	ND	5.0		µg/L	5	11/9/2015 2:31:30 PM	R30121
Xylenes, Total	16	7.5		µg/L	5	11/9/2015 2:31:30 PM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:12:00 AM

Lab ID: 1511257-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	5	11/9/2015 2:31:30 PM	R30121
Surr: 4-Bromofluorobenzene	79.9	70-130		%REC	5	11/9/2015 2:31:30 PM	R30121
Surr: Dibromofluoromethane	99.7	70-130		%REC	5	11/9/2015 2:31:30 PM	R30121
Surr: Toluene-d8	98.3	70-130		%REC	5	11/9/2015 2:31:30 PM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:30:00 AM

Lab ID: 1511257-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	ND	0.050		mg/L	50	12/2/2015 5:17:30 PM	A30584
Lead	ND	0.0050		mg/L	10	11/25/2015 7:30:19 PM	F30497
Selenium	0.094	0.050	*	mg/L	50	12/2/2015 5:17:30 PM	A30584
Uranium	0.25	0.010	*	mg/L	20	11/30/2015 6:28:35 PM	C30537
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	2.0		mg/L	20	11/13/2015 1:13:34 AM	R30221
Chloride	16000	1000		mg/L	2E	11/19/2015 9:20:26 PM	R30360
Bromide	11	2.0		mg/L	20	11/13/2015 1:13:34 AM	R30221
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	11/13/2015 1:13:34 AM	R30221
Sulfate	1600	25		mg/L	50	11/19/2015 9:08:02 PM	R30360
Nitrate+Nitrite as N	ND	10		mg/L	50	11/19/2015 10:10:04 PM	R30360
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.085	0.0020		mg/L	1	11/17/2015 5:14:43 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 5:14:43 PM	A30284
Calcium	2700	50		mg/L	50	11/18/2015 5:11:05 PM	A30311
Chromium	ND	0.0060		mg/L	1	11/17/2015 5:14:43 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 5:01:35 PM	A30311
Iron	0.11	0.020		mg/L	1	11/17/2015 5:14:43 PM	A30284
Magnesium	430	5.0		mg/L	5	11/18/2015 5:03:36 PM	A30311
Manganese	14	0.10	*	mg/L	50	11/18/2015 5:11:05 PM	A30311
Potassium	13	1.0		mg/L	1	11/17/2015 5:14:43 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 5:14:43 PM	A30284
Sodium	6000	500		mg/L	500	11/18/2015 5:13:07 PM	A30311
Zinc	0.011	0.010		mg/L	1	11/18/2015 5:01:35 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.19	0.0020		mg/L	1	11/17/2015 2:49:53 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:49:53 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:49:53 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 2:49:53 PM	22253
Iron	4.8	0.10	*	mg/L	5	11/18/2015 12:55:50 PM	22253
Manganese	16	0.040	*	mg/L	20	11/18/2015 1:03:22 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 2:49:53 PM	22253
Zinc	0.021	0.010		mg/L	1	11/17/2015 2:49:53 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.050		mg/L	50	11/20/2015 8:11:45 PM	22253
Lead	ND	0.010		mg/L	20	11/17/2015 2:47:53 PM	22253
Selenium	ND	0.50		mg/L	50	11/20/2015 8:11:45 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:30:00 AM

Lab ID: 1511257-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.25	0.010	*	mg/L	20	11/17/2015 2:47:53 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:11:24 PM	22333
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/9/2015 4:58:26 PM	22221
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/9/2015 4:58:26 PM	22221
Surr: DNOP	106	72-136		%REC	1	11/9/2015 4:58:26 PM	22221
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 12:48:17 PM	R30083
Surr: BFB	77.8	57.8-137		%REC	1	11/6/2015 12:48:17 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Aniline	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 6:45:15 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:30:00 AM

Lab ID: 1511257-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 6:45:15 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 6:45:15 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 6:45:15 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Naphthalene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 6:45:15 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:30:00 AM

Lab ID: 1511257-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 6:45:15 PM	22238
Surr: 2-Fluorophenol	4.25	4.63-113	S	%REC	1	11/12/2015 6:45:15 PM	22238
Surr: Phenol-d5	7.51	4.13-124		%REC	1	11/12/2015 6:45:15 PM	22238
Surr: 2,4,6-Tribromophenol	3.11	5.14-132	S	%REC	1	11/12/2015 6:45:15 PM	22238
Surr: Nitrobenzene-d5	85.7	9.13-140		%REC	1	11/12/2015 6:45:15 PM	22238
Surr: 2-Fluorobiphenyl	91.4	10.8-132		%REC	1	11/12/2015 6:45:15 PM	22238
Surr: 4-Terphenyl-d14	64.7	12.9-107		%REC	1	11/12/2015 6:45:15 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Toluene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Ethylbenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Naphthalene	ND	2.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
2-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Acetone	ND	10		µg/L	1	11/10/2015 8:58:55 PM	R30143
Bromobenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Bromodichloromethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Bromoform	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Bromomethane	ND	3.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
2-Butanone	ND	10		µg/L	1	11/10/2015 8:58:55 PM	R30143
Carbon disulfide	ND	10		µg/L	1	11/10/2015 8:58:55 PM	R30143
Carbon Tetrachloride	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Chlorobenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Chloroethane	ND	2.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Chloroform	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Chloromethane	ND	3.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
2-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
4-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
cis-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:30:00 AM

Lab ID: 1511257-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Dibromochloromethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Dibromomethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,1-Dichloroethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,1-Dichloroethene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,3-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
2,2-Dichloropropane	ND	2.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,1-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Hexachlorobutadiene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
2-Hexanone	ND	10		µg/L	1	11/10/2015 8:58:55 PM	R30143
Isopropylbenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
4-Isopropyltoluene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
4-Methyl-2-pentanone	ND	10		µg/L	1	11/10/2015 8:58:55 PM	R30143
Methylene Chloride	ND	3.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
n-Butylbenzene	ND	3.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
n-Propylbenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
sec-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Styrene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
tert-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
trans-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Trichlorofluoromethane	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Vinyl chloride	ND	1.0		µg/L	1	11/10/2015 8:58:55 PM	R30143
Xylenes, Total	ND	1.5		µg/L	1	11/10/2015 8:58:55 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 9:30:00 AM

Lab ID: 1511257-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	11/10/2015 8:58:55 PM	R30143
Surr: 4-Bromofluorobenzene	96.5	70-130		%REC	1	11/10/2015 8:58:55 PM	R30143
Surr: Dibromofluoromethane	104	70-130		%REC	1	11/10/2015 8:58:55 PM	R30143
Surr: Toluene-d8	101	70-130		%REC	1	11/10/2015 8:58:55 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:00:00 AM

Lab ID: 1511257-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 6:11:45 PM	C30411
Lead	ND	0.00050		mg/L	1	11/18/2015 8:03:27 PM	E30317
Selenium	0.0081	0.0050		mg/L	5	11/22/2015 6:11:45 PM	C30411
Uranium	0.059	0.0025	*	mg/L	5	12/2/2015 5:20:33 PM	A30584
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.19	0.10		mg/L	1	11/13/2015 1:25:59 AM	R30221
Chloride	510	25		mg/L	50	11/19/2015 9:32:50 PM	R30360
Bromide	1.2	0.10		mg/L	1	11/13/2015 1:25:59 AM	R30221
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/13/2015 1:25:59 AM	R30221
Sulfate	100	10		mg/L	20	11/13/2015 1:38:23 AM	R30221
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/19/2015 10:22:28 PM	R30360
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.054	0.0020		mg/L	1	11/17/2015 5:16:45 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 5:16:45 PM	A30284
Calcium	31	1.0		mg/L	1	11/17/2015 5:16:45 PM	A30284
Chromium	ND	0.0060		mg/L	1	11/17/2015 5:16:45 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 5:15:02 PM	A30311
Iron	0.064	0.020		mg/L	1	11/17/2015 5:16:45 PM	A30284
Magnesium	6.2	1.0		mg/L	1	11/17/2015 5:16:45 PM	A30284
Manganese	0.076	0.0020	*	mg/L	1	11/17/2015 5:16:45 PM	A30284
Potassium	1.1	1.0		mg/L	1	11/17/2015 5:16:45 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 5:16:45 PM	A30284
Sodium	630	10		mg/L	10	11/18/2015 5:17:05 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 5:15:02 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.16	0.0020		mg/L	1	11/17/2015 2:51:39 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:51:39 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:51:39 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 2:51:39 PM	22253
Iron	3.2	0.10	*	mg/L	5	11/18/2015 1:05:19 PM	22253
Manganese	0.22	0.0020	*	mg/L	1	11/17/2015 2:51:39 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 2:51:39 PM	22253
Zinc	0.015	0.010		mg/L	1	11/17/2015 2:51:39 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0052	0.0010		mg/L	1	11/17/2015 2:50:54 PM	22253
Lead	0.0046	0.00050		mg/L	1	11/17/2015 2:50:54 PM	22253
Selenium	0.0083	0.0050		mg/L	5	11/17/2015 3:00:13 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:00:00 AM

Lab ID: 1511257-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.061	0.0025	*	mg/L	5	11/17/2015 3:00:13 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:13:28 PM	22333
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/9/2015 5:25:12 PM	22221
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/9/2015 5:25:12 PM	22221
Surr: DNOP	110	72-136		%REC	1	11/9/2015 5:25:12 PM	22221
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.57	0.050		mg/L	1	11/6/2015 1:12:49 PM	R30083
Surr: BFB	83.1	57.8-137		%REC	1	11/6/2015 1:12:49 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 4:41:23 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:00:00 AM

Lab ID: 1511257-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 4:41:23 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 4:41:23 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 4:41:23 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 4:41:23 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:00:00 AM

Lab ID: 1511257-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 4:41:23 PM	22238
Surr: 2-Fluorophenol	80.0	4.63-113		%REC	1	11/9/2015 4:41:23 PM	22238
Surr: Phenol-d5	71.7	4.13-124		%REC	1	11/9/2015 4:41:23 PM	22238
Surr: 2,4,6-Tribromophenol	89.8	5.14-132		%REC	1	11/9/2015 4:41:23 PM	22238
Surr: Nitrobenzene-d5	97.8	9.13-140		%REC	1	11/9/2015 4:41:23 PM	22238
Surr: 2-Fluorobiphenyl	103	10.8-132		%REC	1	11/9/2015 4:41:23 PM	22238
Surr: 4-Terphenyl-d14	63.5	12.9-107		%REC	1	11/9/2015 4:41:23 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Toluene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Methyl tert-butyl ether (MTBE)	590	20		µg/L	20	11/6/2015 6:27:21 PM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2-Dichloroethane (EDC)	27	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Naphthalene	ND	2.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Acetone	ND	10		µg/L	1	11/6/2015 6:56:08 PM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Bromoform	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Bromomethane	ND	3.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
2-Butanone	ND	10		µg/L	1	11/6/2015 6:56:08 PM	R30086
Carbon disulfide	ND	10		µg/L	1	11/6/2015 6:56:08 PM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Chloroethane	ND	2.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Chloroform	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Chloromethane	ND	3.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
cis-1,2-DCE	2.0	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:00:00 AM

Lab ID: 1511257-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,1-Dichloroethane	21	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,1-Dichloroethene	39	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,1-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
2-Hexanone	ND	10		µg/L	1	11/6/2015 6:56:08 PM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/6/2015 6:56:08 PM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
sec-Butylbenzene	1.5	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Styrene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,1,1-Trichloroethane	1.1	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,1,2-Trichloroethane	2.2	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/6/2015 6:56:08 PM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/6/2015 6:56:08 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:00:00 AM

Lab ID: 1511257-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	1	11/6/2015 6:56:08 PM	R30086
Surr: 4-Bromofluorobenzene	98.8	70-130		%REC	1	11/6/2015 6:56:08 PM	R30086
Surr: Dibromofluoromethane	100	70-130		%REC	1	11/6/2015 6:56:08 PM	R30086
Surr: Toluene-d8	106	70-130		%REC	1	11/6/2015 6:56:08 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:30:00 AM

Lab ID: 1511257-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/25/2015 7:33:23 PM	F30497
Lead	0.0015	0.00050		mg/L	1	11/18/2015 8:06:31 PM	E30317
Selenium	0.054	0.0050	*	mg/L	5	11/22/2015 6:14:48 PM	C30411
Uranium	0.022	0.00050		mg/L	1	11/18/2015 8:06:31 PM	E30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.35	0.10		mg/L	1	11/13/2015 1:50:48 AM	R30221
Chloride	830	25		mg/L	50	11/19/2015 9:45:14 PM	R30360
Bromide	2.1	0.10		mg/L	1	11/13/2015 1:50:48 AM	R30221
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/13/2015 1:50:48 AM	R30221
Sulfate	68	10		mg/L	20	11/13/2015 2:03:12 AM	R30221
Nitrate+Nitrite as N	4.2	1.0		mg/L	5	11/19/2015 10:34:53 PM	R30360
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.083	0.0020		mg/L	1	11/17/2015 5:18:53 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 5:18:53 PM	A30284
Calcium	16	1.0		mg/L	1	11/17/2015 5:18:53 PM	A30284
Chromium	ND	0.0060		mg/L	1	11/17/2015 5:18:53 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 5:18:52 PM	A30311
Iron	0.27	0.020		mg/L	1	11/17/2015 5:18:53 PM	A30284
Magnesium	2.4	1.0		mg/L	1	11/17/2015 5:18:53 PM	A30284
Manganese	0.037	0.0020		mg/L	1	11/17/2015 5:18:53 PM	A30284
Potassium	2.4	1.0		mg/L	1	11/17/2015 5:18:53 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 5:18:53 PM	A30284
Sodium	630	10		mg/L	10	11/18/2015 5:20:56 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 5:18:52 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.17	0.0020		mg/L	1	11/17/2015 2:53:34 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:53:34 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:53:34 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 2:53:34 PM	22253
Iron	4.3	0.10	*	mg/L	5	11/18/2015 1:07:16 PM	22253
Manganese	0.17	0.0020	*	mg/L	1	11/17/2015 2:53:34 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 2:53:34 PM	22253
Zinc	0.019	0.010		mg/L	1	11/17/2015 2:53:34 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/20/2015 8:14:45 PM	22253
Lead	0.0056	0.00050		mg/L	1	11/17/2015 3:03:13 PM	22253
Selenium	0.052	0.0050	*	mg/L	5	11/17/2015 3:06:14 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:30:00 AM

Lab ID: 1511257-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.025	0.00050		mg/L	1	11/17/2015 3:03:13 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 4:15:34 PM	22333
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/9/2015 5:51:44 PM	22221
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/9/2015 5:51:44 PM	22221
Surr: DNOP	110	72-136		%REC	1	11/9/2015 5:51:44 PM	22221
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 1:37:19 PM	R30083
Surr: BFB	75.9	57.8-137		%REC	1	11/6/2015 1:37:19 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Aniline	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 7:14:52 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:30:00 AM

Lab ID: 1511257-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 7:14:52 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 7:14:52 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 7:14:52 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Naphthalene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 7:14:52 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:30:00 AM

Lab ID: 1511257-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 7:14:52 PM	22238
Surr: 2-Fluorophenol	50.0	4.63-113		%REC	1	11/12/2015 7:14:52 PM	22238
Surr: Phenol-d5	47.7	4.13-124		%REC	1	11/12/2015 7:14:52 PM	22238
Surr: 2,4,6-Tribromophenol	78.7	5.14-132		%REC	1	11/12/2015 7:14:52 PM	22238
Surr: Nitrobenzene-d5	64.5	9.13-140		%REC	1	11/12/2015 7:14:52 PM	22238
Surr: 2-Fluorobiphenyl	68.4	10.8-132		%REC	1	11/12/2015 7:14:52 PM	22238
Surr: 4-Terphenyl-d14	48.1	12.9-107		%REC	1	11/12/2015 7:14:52 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Toluene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2-Dichloroethane (EDC)	2.3	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Naphthalene	ND	2.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Acetone	ND	10		µg/L	1	11/6/2015 7:53:28 PM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Bromoform	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Bromomethane	ND	3.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
2-Butanone	ND	10		µg/L	1	11/6/2015 7:53:28 PM	R30086
Carbon disulfide	ND	10		µg/L	1	11/6/2015 7:53:28 PM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Chloroethane	ND	2.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Chloroform	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Chloromethane	ND	3.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
cis-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:30:00 AM

Lab ID: 1511257-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,1-Dichloroethane	3.1	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,1-Dichloroethene	3.8	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,1-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
2-Hexanone	ND	10		µg/L	1	11/6/2015 7:53:28 PM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/6/2015 7:53:28 PM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
sec-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Styrene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/6/2015 7:53:28 PM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/6/2015 7:53:28 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:30:00 AM

Lab ID: 1511257-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	1	11/6/2015 7:53:28 PM	R30086
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/6/2015 7:53:28 PM	R30086
Surr: Dibromofluoromethane	102	70-130		%REC	1	11/6/2015 7:53:28 PM	R30086
Surr: Toluene-d8	107	70-130		%REC	1	11/6/2015 7:53:28 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:56:00 AM

Lab ID: 1511257-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 6:33:15 PM	D30411
Lead	ND	0.00050		mg/L	1	11/18/2015 8:09:34 PM	E30317
Selenium	0.012	0.0050		mg/L	5	11/22/2015 6:33:15 PM	D30411
Uranium	0.024	0.0025		mg/L	5	11/22/2015 6:33:15 PM	D30411
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.60	0.50		mg/L	5	11/13/2015 2:15:37 AM	R30221
Chloride	870	25		mg/L	50	11/19/2015 9:57:39 PM	R30360
Bromide	1.7	0.50		mg/L	5	11/13/2015 2:15:37 AM	R30221
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/13/2015 2:15:37 AM	R30221
Sulfate	120	2.5		mg/L	5	11/13/2015 2:15:37 AM	R30221
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/19/2015 10:47:17 PM	R30360
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.071	0.0020		mg/L	1	11/17/2015 5:20:56 PM	A30284
Cadmium	ND	0.0020		mg/L	1	11/17/2015 5:20:56 PM	A30284
Calcium	19	1.0		mg/L	1	11/17/2015 5:20:56 PM	A30284
Chromium	ND	0.0060		mg/L	1	11/17/2015 5:20:56 PM	A30284
Copper	ND	0.0060		mg/L	1	11/18/2015 5:22:46 PM	A30311
Iron	0.092	0.020		mg/L	1	11/17/2015 5:20:56 PM	A30284
Magnesium	2.5	1.0		mg/L	1	11/17/2015 5:20:56 PM	A30284
Manganese	0.43	0.0020	*	mg/L	1	11/17/2015 5:20:56 PM	A30284
Potassium	2.0	1.0		mg/L	1	11/17/2015 5:20:56 PM	A30284
Silver	ND	0.0050		mg/L	1	11/17/2015 5:20:56 PM	A30284
Sodium	660	10		mg/L	10	11/18/2015 5:29:10 PM	A30311
Zinc	ND	0.010		mg/L	1	11/18/2015 5:22:46 PM	A30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.076	0.0020		mg/L	1	11/17/2015 2:55:22 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:55:22 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:55:22 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 2:55:22 PM	22253
Iron	0.49	0.020	*	mg/L	1	11/17/2015 2:55:22 PM	22253
Manganese	0.39	0.0020	*	mg/L	1	11/17/2015 2:55:22 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 2:55:22 PM	22253
Zinc	ND	0.010		mg/L	1	11/17/2015 2:55:22 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.010		mg/L	1	11/17/2015 3:09:14 PM	22253
Lead	0.00077	0.00050		mg/L	1	11/17/2015 3:09:14 PM	22253
Selenium	0.011	0.0050		mg/L	5	11/17/2015 3:12:15 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:56:00 AM

Lab ID: 1511257-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.027	0.0025		mg/L	5	11/17/2015 3:12:15 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 6:19:40 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	45	1.0		mg/L	1	11/9/2015 6:18:34 PM	22221
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/9/2015 6:18:34 PM	22221
Surr: DNOP	108	72-136		%REC	1	11/9/2015 6:18:34 PM	22221
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.11	0.050		mg/L	1	11/6/2015 2:01:50 PM	R30083
Surr: BFB	98.8	57.8-137		%REC	1	11/6/2015 2:01:50 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Acenaphthylene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Aniline	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Anthracene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Azobenzene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Benz(a)anthracene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Benzo(a)pyrene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Benzo(b)fluoranthene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Benzo(g,h,i)perylene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Benzo(k)fluoranthene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Benzoic acid	ND	200	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Benzyl alcohol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Bis(2-chloroethoxy)methane	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Bis(2-chloroethyl)ether	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Bis(2-chloroisopropyl)ether	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Bis(2-ethylhexyl)phthalate	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
4-Bromophenyl phenyl ether	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Butyl benzyl phthalate	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Carbazole	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
4-Chloro-3-methylphenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
4-Chloroaniline	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2-Chloronaphthalene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2-Chlorophenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
4-Chlorophenyl phenyl ether	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Chrysene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Di-n-butyl phthalate	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:56:00 AM

Lab ID: 1511257-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Dibenz(a,h)anthracene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Dibenzofuran	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
1,2-Dichlorobenzene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
1,3-Dichlorobenzene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
1,4-Dichlorobenzene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
3,3'-Dichlorobenzidine	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Diethyl phthalate	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Dimethyl phthalate	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2,4-Dichlorophenol	ND	200	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2,4-Dimethylphenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
4,6-Dinitro-2-methylphenol	ND	200	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2,4-Dinitrophenol	ND	200	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2,4-Dinitrotoluene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2,6-Dinitrotoluene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Fluoranthene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Fluorene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Hexachlorobenzene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Hexachlorobutadiene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Hexachlorocyclopentadiene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Hexachloroethane	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Indeno(1,2,3-cd)pyrene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Isophorone	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
1-Methylnaphthalene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2-Methylnaphthalene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2-Methylphenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
3+4-Methylphenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
N-Nitrosodi-n-propylamine	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
N-Nitrosodimethylamine	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
N-Nitrosodiphenylamine	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Naphthalene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2-Nitroaniline	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
3-Nitroaniline	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
4-Nitroaniline	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Nitrobenzene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2-Nitrophenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
4-Nitrophenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Pentachlorophenol	ND	200	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Phenanthrene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:56:00 AM

Lab ID: 1511257-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Pyrene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Pyridine	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
1,2,4-Trichlorobenzene	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2,4,5-Trichlorophenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
2,4,6-Trichlorophenol	ND	100	D	µg/L	10	11/13/2015 6:22:12 PM	22238
Surr: 2-Fluorophenol	82.3	4.63-113	D	%REC	10	11/13/2015 6:22:12 PM	22238
Surr: Phenol-d5	63.7	4.13-124	D	%REC	10	11/13/2015 6:22:12 PM	22238
Surr: 2,4,6-Tribromophenol	56.9	5.14-132	D	%REC	10	11/13/2015 6:22:12 PM	22238
Surr: Nitrobenzene-d5	77.6	9.13-140	D	%REC	10	11/13/2015 6:22:12 PM	22238
Surr: 2-Fluorobiphenyl	78.2	10.8-132	D	%REC	10	11/13/2015 6:22:12 PM	22238
Surr: 4-Terphenyl-d14	72.8	12.9-107	D	%REC	10	11/13/2015 6:22:12 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	3.3	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Toluene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Ethylbenzene	1.7	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2,4-Trimethylbenzene	8.3	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,3,5-Trimethylbenzene	5.0	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2-Dichloroethane (EDC)	1.1	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Naphthalene	32	2.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1-Methylnaphthalene	28	4.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
2-Methylnaphthalene	13	4.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Acetone	14	10		µg/L	1	11/10/2015 9:27:46 PM	R30143
Bromobenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Bromodichloromethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Bromoform	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Bromomethane	ND	3.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
2-Butanone	ND	10		µg/L	1	11/10/2015 9:27:46 PM	R30143
Carbon disulfide	ND	10		µg/L	1	11/10/2015 9:27:46 PM	R30143
Carbon Tetrachloride	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Chlorobenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Chloroethane	ND	2.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Chloroform	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Chloromethane	ND	3.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
2-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
4-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
cis-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:56:00 AM

Lab ID: 1511257-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Dibromochloromethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Dibromomethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,1-Dichloroethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,1-Dichloroethene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,3-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
2,2-Dichloropropane	ND	2.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,1-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Hexachlorobutadiene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
2-Hexanone	ND	10		µg/L	1	11/10/2015 9:27:46 PM	R30143
Isopropylbenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
4-Isopropyltoluene	1.1	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
4-Methyl-2-pentanone	ND	10		µg/L	1	11/10/2015 9:27:46 PM	R30143
Methylene Chloride	ND	3.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
n-Butylbenzene	ND	3.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
n-Propylbenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
sec-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Styrene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
tert-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
trans-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Trichlorofluoromethane	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Vinyl chloride	ND	1.0		µg/L	1	11/10/2015 9:27:46 PM	R30143
Xylenes, Total	22	1.5		µg/L	1	11/10/2015 9:27:46 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 10:56:00 AM

Lab ID: 1511257-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	1	11/10/2015 9:27:46 PM	R30143
Surr: 4-Bromofluorobenzene	133	70-130	S	%REC	1	11/10/2015 9:27:46 PM	R30143
Surr: Dibromofluoromethane	94.1	70-130		%REC	1	11/10/2015 9:27:46 PM	R30143
Surr: Toluene-d8	99.3	70-130		%REC	1	11/10/2015 9:27:46 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 7:00:00 AM

Lab ID: 1511257-006

Matrix: TRIP BLANK

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 2:26:17 PM	R30083
Surr: BFB	82.6	57.8-137		%REC	1	11/6/2015 2:26:17 PM	R30083
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Toluene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Naphthalene	ND	2.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Acetone	ND	10		µg/L	1	11/6/2015 8:50:50 PM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Bromoform	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Bromomethane	ND	3.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
2-Butanone	ND	10		µg/L	1	11/6/2015 8:50:50 PM	R30086
Carbon disulfide	ND	10		µg/L	1	11/6/2015 8:50:50 PM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Chloroethane	ND	2.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Chloroform	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Chloromethane	ND	3.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
cis-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,1-Dichloroethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,1-Dichloroethene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 7:00:00 AM

Lab ID: 1511257-006

Matrix: TRIP BLANK

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,2-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,1-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
2-Hexanone	ND	10		µg/L	1	11/6/2015 8:50:50 PM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/6/2015 8:50:50 PM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
sec-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Styrene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/6/2015 8:50:50 PM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/6/2015 8:50:50 PM	R30086
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	11/6/2015 8:50:50 PM	R30086
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	1	11/6/2015 8:50:50 PM	R30086
Surr: Dibromofluoromethane	96.8	70-130		%REC	1	11/6/2015 8:50:50 PM	R30086
Surr: Toluene-d8	107	70-130		%REC	1	11/6/2015 8:50:50 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 7:00:00 AM

Lab ID: 1511257-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Toluene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Naphthalene	ND	2.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Acetone	16	10		µg/L	1	11/6/2015 9:19:32 PM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Bromoform	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Bromomethane	ND	3.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
2-Butanone	ND	10		µg/L	1	11/6/2015 9:19:32 PM	R30086
Carbon disulfide	ND	10		µg/L	1	11/6/2015 9:19:32 PM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Chloroethane	ND	2.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Chloroform	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Chloromethane	ND	3.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
cis-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,1-Dichloroethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,1-Dichloroethene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/6/2015 9:19:32 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 7:00:00 AM

Lab ID: 1511257-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
2-Hexanone	ND	10		µg/L	1	11/6/2015 9:19:32 PM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/6/2015 9:19:32 PM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
sec-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Styrene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/6/2015 9:19:32 PM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/6/2015 9:19:32 PM	R30086
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	11/6/2015 9:19:32 PM	R30086
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/6/2015 9:19:32 PM	R30086
Surr: Dibromofluoromethane	103	70-130		%REC	1	11/6/2015 9:19:32 PM	R30086
Surr: Toluene-d8	89.1	70-130		%REC	1	11/6/2015 9:19:32 PM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 7:00:00 AM

Lab ID: 1511257-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Aniline	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 7:44:39 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 7:44:39 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 7:44:39 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 7:44:39 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511257

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/5/2015 7:00:00 AM

Lab ID: 1511257-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Naphthalene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 7:44:39 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Phenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 7:44:39 PM	22238
Surr: 2-Fluorophenol	83.6	4.63-113		%REC	1	11/12/2015 7:44:39 PM	22238
Surr: Phenol-d5	82.6	4.13-124		%REC	1	11/12/2015 7:44:39 PM	22238
Surr: 2,4,6-Tribromophenol	113	5.14-132		%REC	1	11/12/2015 7:44:39 PM	22238
Surr: Nitrobenzene-d5	93.2	9.13-140		%REC	1	11/12/2015 7:44:39 PM	22238
Surr: 2-Fluorobiphenyl	108	10.8-132		%REC	1	11/12/2015 7:44:39 PM	22238
Surr: 4-Terphenyl-d14	72.2	12.9-107		%REC	1	11/12/2015 7:44:39 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A30284			RunNo: 30284					
Prep Date:		Analysis Date: 11/17/2015			SeqNo: 923644		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A30284		RunNo: 30284					
Prep Date:			Analysis Date: 11/17/2015		SeqNo: 923645		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Iron	0.47	0.020	0.5000	0	94.8	85	115			
Magnesium	49	1.0	50.00	0	97.9	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Potassium	49	1.0	50.00	0	98.3	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			

Sample ID	LLLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30284		RunNo: 30284					
Prep Date:			Analysis Date: 11/17/2015		SeqNo: 923646		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0028	0.0020	0.002000	0	142	50	150			
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Calcium	ND	1.0	0.5000	0	129	50	150			
Chromium	0.0075	0.0060	0.006000	0	124	50	150			
Iron	0.023	0.020	0.02000	0	116	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	0.0023	0.0020	0.002000	0	116	50	150			
Potassium	ND	1.0	0.5000	0	83.7	50	150			
Silver	ND	0.0050	0.005000	0	95.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A30311			RunNo: 30311					
Prep Date:		Analysis Date: 11/18/2015			SeqNo: 924769		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Copper	ND	0.0060								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A30311		RunNo: 30311					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 924770		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	49	1.0	50.00	0	99.0	85	115			
Copper	0.49	0.0060	0.5000	0	98.7	85	115			
Magnesium	50	1.0	50.00	0	99.1	85	115			
Manganese	0.48	0.0020	0.5000	0	95.3	85	115			
Sodium	48	1.0	50.00	0	96.4	85	115			
Zinc	0.48	0.010	0.5000	0	96.4	85	115			

Sample ID	LLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30311		RunNo: 30311					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 924771		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0064	0.0060	0.006000	0	108	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Sodium	ND	1.0	0.5000	0	95.9	50	150			

Sample ID	LLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30311		RunNo: 30311					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 924962		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	108	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511257-005EMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	MKTF-42		Batch ID: A30311		RunNo: 30311					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 925280		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.54	0.0060	0.5000	0	109	70	130			
Zinc	0.50	0.010	0.5000	0	101	70	130			

Sample ID	1511257-005EMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	MKTF-42		Batch ID: A30311		RunNo: 30311					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 925281		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.54	0.0060	0.5000	0	108	70	130	0.971	20	
Zinc	0.50	0.010	0.5000	0	99.3	70	130	1.66	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22253		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	22253		RunNo:	30187			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	919748		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LLCS-22253		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	22253		RunNo:	30187			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	919749		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0028	0.0020	0.002000	0	140	50	150			
Cadmium	0.0022	0.0020	0.002000	0	109	50	150			
Chromium	0.0063	0.0060	0.006000	0	105	50	150			
Copper	ND	0.0060	0.006000	0	96.7	50	150			
Iron	ND	0.020	0.02000	0	76.7	50	150			
Manganese	0.0020	0.0020	0.002000	0	101	50	150			
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Zinc	ND	0.010	0.005000	0	119	50	150			

Sample ID	LCS-22253		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	22253		RunNo:	30187			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	919750		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.46	0.020	0.5000	0	91.4	85	115			
Manganese	0.47	0.0020	0.5000	0	94.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.47	0.010	0.5000	0	93.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511257-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-25		Batch ID: 22253		RunNo: 30284					
Prep Date:	11/9/2015		Analysis Date: 11/17/2015		SeqNo: 923986		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.50	0.0060	0.5000	0.007520	97.9	70	130			
Copper	0.56	0.0060	0.5000	0.01905	108	70	130			
Silver	0.11	0.0050	0.1000	0	107	70	130			
Zinc	0.49	0.010	0.5000	0.02113	93.3	70	130			

Sample ID	1511257-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-25		Batch ID: 22253		RunNo: 30284					
Prep Date:	11/9/2015		Analysis Date: 11/17/2015		SeqNo: 923987		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.52	0.0020	0.5000	0	103	70	130	1.22	20	
Chromium	0.50	0.0060	0.5000	0.007520	99.4	70	130	1.53	20	
Copper	0.56	0.0060	0.5000	0.01905	109	70	130	1.30	20	
Silver	0.11	0.0050	0.1000	0	108	70	130	0.597	20	
Zinc	0.49	0.010	0.5000	0.02113	94.3	70	130	1.04	20	

Sample ID	1511257-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-25		Batch ID: 22253		RunNo: 30311					
Prep Date:	11/9/2015		Analysis Date: 11/18/2015		SeqNo: 924975		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.3	0.010	0.5000	0.8112	98.5	70	130			
Manganese	4.5	0.010	0.5000	3.934	119	70	130			

Sample ID	1511257-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-25		Batch ID: 22253		RunNo: 30311					
Prep Date:	11/9/2015		Analysis Date: 11/18/2015		SeqNo: 924976		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.3	0.010	0.5000	0.8112	96.5	70	130	0.766	20	
Manganese	4.6	0.010	0.5000	3.934	131	70	130	1.35	20	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: E30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926092		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	93.6	85	115			
Uranium	0.012	0.00050	0.01250	0	94.5	85	115			

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: E30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926095		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00060	0.00050	0.0005000	0	120	50	150			
Uranium	ND	0.00050	0.0005000	0	97.7	50	150			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: E30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926098		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928161		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.8	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928162		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.8	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: C30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928163		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: C30411		RunNo: 30411						
Prep Date:		Analysis Date: 11/22/2015		SeqNo: 928163		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: D30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928187		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.0	85	115			
Selenium	0.024	0.0010	0.02500	0	97.5	85	115			
Uranium	0.011	0.00050	0.01250	0	89.5	85	115			

Sample ID	LCSLL		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928188		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.8	50	150			
Selenium	0.0011	0.0010	0.001000	0	110	50	150			
Uranium	ND	0.00050	0.0005000	0	93.1	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: D30411			RunNo: 30411					
Prep Date:		Analysis Date: 11/22/2015			SeqNo: 928189		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: F30497		RunNo: 30497					
Prep Date:			Analysis Date: 11/25/2015		SeqNo: 931125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Lead	0.012	0.00050	0.01250	0	96.1	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	F30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931128	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	88.8	50	150			
Lead	ND	0.00050	0.0005000	0	98.0	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	F30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931131	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	C30537	RunNo:	30537					
Prep Date:		Analysis Date:	11/30/2015	SeqNo:	932369	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	97.3	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	C30537	RunNo:	30537					
Prep Date:		Analysis Date:	11/30/2015	SeqNo:	932371	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050	0.0005000	0	97.9	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	C30537	RunNo:	30537					
Prep Date:		Analysis Date:	11/30/2015	SeqNo:	932373	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933680	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.3	85	115			
Selenium	0.025	0.0010	0.02500	0	99.1	85	115			
Uranium	0.012	0.00050	0.01250	0	96.5	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LLLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: A30584			RunNo: 30584					
Prep Date:		Analysis Date: 12/2/2015			SeqNo: 933681		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	92.1	50	150			
Selenium	ND	0.0010	0.001000	0	96.1	50	150			
Uranium	ND	0.00050	0.0005000	0	96.1	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: A30584			RunNo: 30584					
Prep Date:		Analysis Date: 12/2/2015			SeqNo: 933682		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22253		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 22253		RunNo: 30208					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 920658		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22253		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 22253		RunNo: 30208					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 920661		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.013	0.00050	0.01250	0	104	85	115			
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			
Uranium	0.013	0.00050	0.01250	0	104	85	115			

Sample ID	MSLL LCS-22253		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 22253		RunNo: 30208					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 920664		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	ND	0.00050	0.0005000	0	97.6	50	150			
Selenium	ND	0.0010	0.001000	0	81.4	50	150			
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22333		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22333		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921268		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22333		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22333		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921269		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0056	0.00020	0.005000	0	112	80	120			

Sample ID	MB-22341		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22341		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921328		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22341		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22341		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921336		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0061	0.00020	0.005000	0	121	80	120			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30221	RunNo:	30221					
Prep Date:		Analysis Date:	11/12/2015	SeqNo:	920966	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30221	RunNo:	30221					
Prep Date:		Analysis Date:	11/12/2015	SeqNo:	920967	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.2	90	110			
Bromide	2.3	0.10	2.500	0	90.7	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.3	90	110			
Sulfate	9.5	0.50	10.00	0	94.8	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30360	RunNo:	30360					
Prep Date:		Analysis Date:	11/19/2015	SeqNo:	926853	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30360	RunNo:	30360					
Prep Date:		Analysis Date:	11/19/2015	SeqNo:	926854	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.1	90	110			
Sulfate	9.9	0.50	10.00	0	98.9	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22221	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 22221			RunNo: 30094					
Prep Date:	11/9/2015	Analysis Date: 11/9/2015			SeqNo: 917155		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		120	72	136			

Sample ID	LCS-22221		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 22221		RunNo: 30094					
Prep Date:	11/9/2015		Analysis Date: 11/9/2015		SeqNo: 917156		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	52.4	154			
Surr: DNOP	0.58		0.5000		117	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R30083		RunNo: 30083					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916424		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		78.0	57.8	137			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R30083		RunNo: 30083					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916425		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.0	80	120			
Surr: BFB	19		20.00		95.4	57.8	137			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	100ng lcs3		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R30086		RunNo: 30086					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916525		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		99.9	70	130			

Sample ID	rb3		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW		Batch ID: R30086		RunNo: 30086					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916527		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30086	RunNo:	30086					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916527	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb3		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R30086		RunNo:	30086			
Prep Date:			Analysis Date:	11/6/2015		SeqNo:	916527	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	100ng lcs3		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R30121		RunNo:	30121			
Prep Date:			Analysis Date:	11/9/2015		SeqNo:	917619	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	115	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.9	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.4	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.4	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID	rb6		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R30121		RunNo:	30121			
Prep Date:			Analysis Date:	11/10/2015		SeqNo:	917912	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb6	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30121	RunNo:	30121					
Prep Date:		Analysis Date:	11/10/2015	SeqNo:	917912	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID rb6	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30121			RunNo: 30121						
Prep Date:	Analysis Date: 11/10/2015			SeqNo: 917912		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.6	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R30143			RunNo: 30143						
Prep Date:	Analysis Date: 11/10/2015			SeqNo: 918499		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	19	1.0	20.00	0	95.6	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	116	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		111	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.7	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.2		10.00		91.8	70	130			

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30143			RunNo: 30143						
Prep Date:	Analysis Date: 11/10/2015			SeqNo: 918500		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30143			RunNo: 30143					
Prep Date:		Analysis Date: 11/10/2015			SeqNo: 918500	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30143			RunNo: 30143					
Prep Date:		Analysis Date: 11/10/2015			SeqNo: 918500	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.4	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	mb-22238		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 22238		RunNo: 30112					
Prep Date:	11/9/2015		Analysis Date: 11/9/2015		SeqNo: 917465		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	mb-22238	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	22238	RunNo:	30112					
Prep Date:	11/9/2015	Analysis Date:	11/9/2015	SeqNo:	917465	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	150		200.0		76.3	4.63	113			
Surr: Phenol-d5	150		200.0		76.9	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	5.14	132			
Surr: Nitrobenzene-d5	78		100.0		77.8	9.13	140			
Surr: 2-Fluorobiphenyl	84		100.0		84.5	10.8	132			
Surr: 4-Terphenyl-d14	48		100.0		47.8	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	Ics-22238		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 22238		RunNo: 30112					
Prep Date:	11/9/2015		Analysis Date: 11/9/2015		SeqNo: 917466		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	75	10	100.0	0	75.3	40.2	107			
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	48.2	107			
2-Chlorophenol	170	10	200.0	0	85.2	42.5	106			
1,4-Dichlorobenzene	74	10	100.0	0	73.8	31.6	111			
2,4-Dinitrotoluene	63	10	100.0	0	62.7	33.6	86.5			
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.5	44	106			
4-Nitrophenol	130	10	200.0	0	66.7	25.5	109			
Pentachlorophenol	110	20	200.0	0	57.4	38.8	97.8			
Phenol	160	10	200.0	0	80.8	22.7	116			
Pyrene	87	10	100.0	0	87.0	29.3	138			
1,2,4-Trichlorobenzene	86	10	100.0	0	85.7	35.3	123			
Surr: 2-Fluorophenol	140		200.0		72.2	4.63	113			
Surr: Phenol-d5	160		200.0		78.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		75.5	5.14	132			
Surr: Nitrobenzene-d5	78		100.0		78.4	9.13	140			
Surr: 2-Fluorobiphenyl	77		100.0		77.1	10.8	132			
Surr: 4-Terphenyl-d14	51		100.0		50.7	12.9	107			

Sample ID	1511257-001dms	SampType: MS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-25	Batch ID: 22238			RunNo: 30112					
Prep Date:	11/9/2015	Analysis Date: 11/9/2015			SeqNo: 917476		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	96	10	100.0	0	95.7	46.4	121			
4-Chloro-3-methylphenol	180	10	200.0	0	91.1	45.3	135			
2-Chlorophenol	190	10	200.0	0	97.3	28.7	129			
1,4-Dichlorobenzene	92	10	100.0	0	92.1	42.6	104			
2,4-Dinitrotoluene	81	10	100.0	0	81.2	28.9	126			
N-Nitrosodi-n-propylamine	97	10	100.0	0	97.3	49.2	117			
4-Nitrophenol	64	10	200.0	0	31.9	18.1	97.2			
Pentachlorophenol	96	20	200.0	0	47.8	24.8	127			
Phenol	140	10	200.0	0	70.0	17.9	93.6			
Pyrene	110	10	100.0	0	109	29.6	142			
1,2,4-Trichlorobenzene	100	10	100.0	0	101	39.5	109			
Surr: 2-Fluorophenol	140		200.0		71.7	4.63	113			
Surr: Phenol-d5	140		200.0		69.2	4.13	124			
Surr: 2,4,6-Tribromophenol	180		200.0		89.2	5.14	132			
Surr: Nitrobenzene-d5	88		100.0		88.5	9.13	140			
Surr: 2-Fluorobiphenyl	100		100.0		102	10.8	132			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511257-001dms		SampType: MS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-25		Batch ID: 22238		RunNo: 30112					
Prep Date:	11/9/2015		Analysis Date: 11/9/2015		SeqNo: 917476		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	56		100.0		55.7	12.9	107			

Sample ID	1511257-001dmsd		SampType: MSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-25		Batch ID: 22238		RunNo: 30112					
Prep Date:	11/9/2015		Analysis Date: 11/9/2015		SeqNo: 917477		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	91.2	46.4	121	4.84	31.3	
4-Chloro-3-methylphenol	180	10	200.0	0	89.9	45.3	135	1.34	29	
2-Chlorophenol	180	10	200.0	0	88.6	28.7	129	9.30	28.4	
1,4-Dichlorobenzene	89	10	100.0	0	89.4	42.6	104	2.93	28.2	
2,4-Dinitrotoluene	83	10	100.0	0	83.1	28.9	126	2.39	22.9	
N-Nitrosodi-n-propylamine	97	10	100.0	0	96.8	49.2	117	0.515	28.8	
4-Nitrophenol	150	10	200.0	0	74.0	18.1	97.2	79.4	41.5	R
Pentachlorophenol	150	20	200.0	0	74.8	24.8	127	44.0	45.1	
Phenol	110	10	200.0	0	56.7	17.9	93.6	21.0	33.9	
Pyrene	110	10	100.0	0	106	29.6	142	2.78	33.6	
1,2,4-Trichlorobenzene	110	10	100.0	0	106	39.5	109	4.99	28.2	
Surr: 2-Fluorophenol	120		200.0		62.5	4.63	113	0	0	
Surr: Phenol-d5	110		200.0		53.3	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		84.2	5.14	132	0	0	
Surr: Nitrobenzene-d5	86		100.0		86.1	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	91		100.0		90.9	10.8	132	0	0	
Surr: 4-Terphenyl-d14	52		100.0		52.4	12.9	107	0	0	

Sample ID	mb-22327		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 22327		RunNo: 30276					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 923158		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		65.4	4.63	113			
Surr: Phenol-d5	140		200.0		69.2	4.13	124			
Surr: 2,4,6-Tribromophenol	160		200.0		80.7	5.14	132			
Surr: Nitrobenzene-d5	73		100.0		72.8	9.13	140			
Surr: 2-Fluorobiphenyl	72		100.0		72.3	10.8	132			
Surr: 4-Terphenyl-d14	54		100.0		54.0	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511257

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	lcs-22327		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 22327		RunNo: 30276					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 923159		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		67.7	4.63	113			
Surr: Phenol-d5	150		200.0		75.8	4.13	124			
Surr: 2,4,6-Tribromophenol	170		200.0		83.2	5.14	132			
Surr: Nitrobenzene-d5	75		100.0		75.1	9.13	140			
Surr: 2-Fluorobiphenyl	82		100.0		81.8	10.8	132			
Surr: 4-Terphenyl-d14	69		100.0		69.3	12.9	107			

Sample ID	lcscd-22327		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 22327		RunNo: 30276					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 923160		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	150		200.0		72.5	4.63	113	0	0	
Surr: Phenol-d5	160		200.0		80.9	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		84.5	5.14	132	0	0	
Surr: Nitrobenzene-d5	75		100.0		75.1	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	82		100.0		82.4	10.8	132	0	0	
Surr: 4-Terphenyl-d14	66		100.0		65.9	12.9	107	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 09, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4th QTR MKTF WELLS

OrderNo.: 1511258

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/5/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:40:00 AM

Lab ID: 1511258-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 6:36:19 PM	D30411
Lead	ND	0.00050		mg/L	1	11/18/2015 8:12:37 PM	E30317
Selenium	ND	0.020		mg/L	20	11/25/2015 7:36:26 PM	F30497
Uranium	0.066	0.0025	*	mg/L	5	11/22/2015 6:36:19 PM	D30411
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.80	0.10		mg/L	1	11/6/2015 2:53:12 PM	R30103
Chloride	2700	100		mg/L	200	11/19/2015 12:53:23 PM	R30364
Bromide	1.2	0.10		mg/L	1	11/6/2015 2:53:12 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 2:53:12 PM	R30103
Sulfate	450	10		mg/L	20	11/6/2015 3:05:36 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 4:11:51 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.078	0.0020		mg/L	1	11/18/2015 5:50:04 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 5:50:04 PM	B30311
Calcium	160	5.0		mg/L	5	11/19/2015 3:22:02 PM	A30352
Chromium	ND	0.0060		mg/L	1	11/18/2015 5:50:04 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 5:50:04 PM	B30311
Iron	0.12	0.020		mg/L	1	11/18/2015 5:50:04 PM	B30311
Magnesium	27	1.0		mg/L	1	11/18/2015 5:50:04 PM	B30311
Manganese	0.70	0.0020	*	mg/L	1	11/18/2015 5:50:04 PM	B30311
Potassium	12	1.0		mg/L	1	11/18/2015 5:50:04 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 5:50:04 PM	B30311
Sodium	1800	20		mg/L	20	11/19/2015 3:24:03 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 5:50:04 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.15	0.0020		mg/L	1	11/17/2015 2:57:33 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:57:33 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:57:33 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 2:57:33 PM	22253
Iron	7.4	0.20	*	mg/L	10	11/18/2015 1:09:13 PM	22253
Manganese	0.93	0.0020	*	mg/L	1	11/17/2015 2:57:33 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 2:57:33 PM	22253
Zinc	0.029	0.010		mg/L	1	11/17/2015 2:57:33 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/17/2015 3:18:16 PM	22253
Lead	0.0073	0.0025		mg/L	5	11/17/2015 3:18:16 PM	22253
Selenium	ND	0.020		mg/L	20	11/20/2015 8:17:46 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:40:00 AM

Lab ID: 1511258-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.064	0.0025	*	mg/L	5	11/17/2015 3:18:16 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 6:21:44 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 4:25:53 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 4:25:53 PM	22175
Surr: DNOP	120	72-136		%REC	1	11/6/2015 4:25:53 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 2:50:45 PM	R30083
Surr: BFB	79.7	57.8-137		%REC	1	11/6/2015 2:50:45 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 5:11:15 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:40:00 AM

Lab ID: 1511258-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 5:11:15 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 5:11:15 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 5:11:15 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 5:11:15 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:40:00 AM

Lab ID: 1511258-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 5:11:15 PM	22238
Surr: 2-Fluorophenol	79.8	4.63-113		%REC	1	11/9/2015 5:11:15 PM	22238
Surr: Phenol-d5	77.8	4.13-124		%REC	1	11/9/2015 5:11:15 PM	22238
Surr: 2,4,6-Tribromophenol	80.5	5.14-132		%REC	1	11/9/2015 5:11:15 PM	22238
Surr: Nitrobenzene-d5	99.2	9.13-140		%REC	1	11/9/2015 5:11:15 PM	22238
Surr: 2-Fluorobiphenyl	103	10.8-132		%REC	1	11/9/2015 5:11:15 PM	22238
Surr: 4-Terphenyl-d14	58.4	12.9-107		%REC	1	11/9/2015 5:11:15 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Toluene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Methyl tert-butyl ether (MTBE)	31	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Naphthalene	ND	2.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Acetone	ND	10		µg/L	1	11/7/2015 12:11:21 AM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Bromoform	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Bromomethane	ND	3.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
2-Butanone	ND	10		µg/L	1	11/7/2015 12:11:21 AM	R30086
Carbon disulfide	ND	10		µg/L	1	11/7/2015 12:11:21 AM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Chloroethane	ND	2.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Chloroform	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Chloromethane	ND	3.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
cis-1,2-DCE	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:40:00 AM

Lab ID: 1511258-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,1-Dichloroethane	2.3	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,1-Dichloroethene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,1-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
2-Hexanone	ND	10		µg/L	1	11/7/2015 12:11:21 AM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/7/2015 12:11:21 AM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
sec-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Styrene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/7/2015 12:11:21 AM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/7/2015 12:11:21 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:40:00 AM

Lab ID: 1511258-001

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	11/7/2015 12:11:21 AM	R30086
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/7/2015 12:11:21 AM	R30086
Surr: Dibromofluoromethane	97.4	70-130		%REC	1	11/7/2015 12:11:21 AM	R30086
Surr: Toluene-d8	95.6	70-130		%REC	1	11/7/2015 12:11:21 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:15:00 AM

Lab ID: 1511258-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 6:39:22 PM	D30411
Lead	ND	0.00050		mg/L	1	11/18/2015 8:15:40 PM	E30317
Selenium	0.010	0.0050		mg/L	5	11/22/2015 6:39:22 PM	D30411
Uranium	0.024	0.0025		mg/L	5	11/22/2015 6:39:22 PM	D30411
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.99	0.10		mg/L	1	11/6/2015 3:42:50 PM	R30103
Chloride	1300	50		mg/L	100	11/19/2015 1:05:48 PM	R30364
Bromide	0.65	0.10		mg/L	1	11/6/2015 3:42:50 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 3:42:50 PM	R30103
Sulfate	380	10		mg/L	20	11/6/2015 3:55:15 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 4:24:15 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.048	0.0020		mg/L	1	11/18/2015 5:52:08 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 5:52:08 PM	B30311
Calcium	120	5.0		mg/L	5	11/19/2015 3:25:50 PM	A30352
Chromium	ND	0.0060		mg/L	1	11/18/2015 5:52:08 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 5:52:08 PM	B30311
Iron	0.036	0.020		mg/L	1	11/18/2015 5:52:08 PM	B30311
Magnesium	23	1.0		mg/L	1	11/18/2015 5:52:08 PM	B30311
Manganese	0.0080	0.0020		mg/L	1	11/18/2015 5:52:08 PM	B30311
Potassium	1.0	1.0		mg/L	1	11/18/2015 5:52:08 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 5:52:08 PM	B30311
Sodium	950	20		mg/L	20	11/19/2015 3:27:46 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 5:52:08 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.24	0.0020		mg/L	1	11/17/2015 2:59:31 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 2:59:31 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 2:59:31 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 2:59:31 PM	22253
Iron	7.1	0.20	*	mg/L	10	11/18/2015 1:11:08 PM	22253
Manganese	0.54	0.0020	*	mg/L	1	11/17/2015 2:59:31 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 2:59:31 PM	22253
Zinc	0.021	0.010		mg/L	1	11/17/2015 2:59:31 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/17/2015 3:24:17 PM	22253
Lead	0.0097	0.00050		mg/L	1	11/17/2015 3:21:17 PM	22253
Selenium	ND	0.020		mg/L	20	11/20/2015 8:20:46 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:15:00 AM

Lab ID: 1511258-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.026	0.0025		mg/L	5	11/17/2015 3:24:17 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 6:23:48 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 4:52:42 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 4:52:42 PM	22175
Surr: DNOP	115	72-136		%REC	1	11/6/2015 4:52:42 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.11	0.050		mg/L	1	11/6/2015 3:15:22 PM	R30083
Surr: BFB	78.0	57.8-137		%REC	1	11/6/2015 3:15:22 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 5:41:04 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:15:00 AM

Lab ID: 1511258-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 5:41:04 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 5:41:04 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 5:41:04 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 5:41:04 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:15:00 AM

Lab ID: 1511258-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 5:41:04 PM	22238
Surr: 2-Fluorophenol	71.6	4.63-113		%REC	1	11/9/2015 5:41:04 PM	22238
Surr: Phenol-d5	65.5	4.13-124		%REC	1	11/9/2015 5:41:04 PM	22238
Surr: 2,4,6-Tribromophenol	78.9	5.14-132		%REC	1	11/9/2015 5:41:04 PM	22238
Surr: Nitrobenzene-d5	97.9	9.13-140		%REC	1	11/9/2015 5:41:04 PM	22238
Surr: 2-Fluorobiphenyl	93.3	10.8-132		%REC	1	11/9/2015 5:41:04 PM	22238
Surr: 4-Terphenyl-d14	57.8	12.9-107		%REC	1	11/9/2015 5:41:04 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Toluene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Methyl tert-butyl ether (MTBE)	2.5	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2-Dichloroethane (EDC)	6.8	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Naphthalene	ND	2.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Acetone	ND	10		µg/L	1	11/7/2015 1:08:31 AM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Bromoform	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Bromomethane	ND	3.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
2-Butanone	ND	10		µg/L	1	11/7/2015 1:08:31 AM	R30086
Carbon disulfide	ND	10		µg/L	1	11/7/2015 1:08:31 AM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Chloroethane	ND	2.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Chloroform	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Chloromethane	ND	3.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
cis-1,2-DCE	12	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:15:00 AM

Lab ID: 1511258-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,1-Dichloroethane	130	10		µg/L	10	11/9/2015 3:29:10 PM	R30121
1,1-Dichloroethene	10	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,1-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
2-Hexanone	ND	10		µg/L	1	11/7/2015 1:08:31 AM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/7/2015 1:08:31 AM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
sec-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Styrene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,1,1-Trichloroethane	3.3	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,1,2-Trichloroethane	1.4	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Trichloroethene (TCE)	8.8	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/7/2015 1:08:31 AM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/7/2015 1:08:31 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:15:00 AM

Lab ID: 1511258-002

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	11/7/2015 1:08:31 AM	R30086
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/7/2015 1:08:31 AM	R30086
Surr: Dibromofluoromethane	97.3	70-130		%REC	1	11/7/2015 1:08:31 AM	R30086
Surr: Toluene-d8	92.5	70-130		%REC	1	11/7/2015 1:08:31 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:35:00 AM

Lab ID: 1511258-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.0022	0.0010		mg/L	1	11/18/2015 8:18:44 PM	E30317
Lead	ND	0.00050		mg/L	1	11/18/2015 8:18:44 PM	E30317
Selenium	0.0035	0.0010		mg/L	1	11/18/2015 8:18:44 PM	E30317
Uranium	0.016	0.00050		mg/L	1	11/18/2015 8:18:44 PM	E30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.92	0.10		mg/L	1	11/6/2015 4:07:39 PM	R30103
Chloride	90	10		mg/L	20	11/6/2015 4:20:05 PM	R30103
Bromide	0.33	0.10		mg/L	1	11/6/2015 4:07:39 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 4:07:39 PM	R30103
Sulfate	650	10		mg/L	20	11/6/2015 4:20:05 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 4:36:40 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.041	0.0020		mg/L	1	11/18/2015 5:54:05 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 5:54:05 PM	B30311
Calcium	78	1.0		mg/L	1	11/18/2015 5:54:05 PM	B30311
Chromium	ND	0.0060		mg/L	1	11/18/2015 5:54:05 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 5:54:05 PM	B30311
Iron	0.036	0.020		mg/L	1	11/18/2015 5:54:05 PM	B30311
Magnesium	10	1.0		mg/L	1	11/18/2015 5:54:05 PM	B30311
Manganese	0.55	0.0020	*	mg/L	1	11/18/2015 5:54:05 PM	B30311
Potassium	ND	1.0		mg/L	1	11/18/2015 5:54:05 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 5:54:05 PM	B30311
Sodium	520	10		mg/L	10	11/19/2015 3:29:43 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 5:54:05 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.089	0.0020		mg/L	1	11/17/2015 3:06:41 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:06:41 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 3:06:41 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 3:06:41 PM	22253
Iron	1.3	0.10	*	mg/L	5	11/18/2015 1:13:09 PM	22253
Manganese	0.61	0.0020	*	mg/L	1	11/17/2015 3:06:41 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:06:41 PM	22253
Zinc	ND	0.010		mg/L	1	11/17/2015 3:06:41 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0020	0.0010		mg/L	1	11/17/2015 3:33:22 PM	22253
Lead	0.0011	0.00050		mg/L	1	11/17/2015 3:33:22 PM	22253
Selenium	ND	0.0050		mg/L	5	11/17/2015 3:36:23 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:35:00 AM

Lab ID: 1511258-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.017	0.00050		mg/L	1	11/17/2015 3:33:22 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/13/2015 6:25:54 PM	22341
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 5:20:04 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 5:20:04 PM	22175
Surr: DNOP	116	72-136		%REC	1	11/6/2015 5:20:04 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 3:39:57 PM	R30083
Surr: BFB	77.8	57.8-137		%REC	1	11/6/2015 3:39:57 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 8:09:03 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:35:00 AM

Lab ID: 1511258-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 8:09:03 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 8:09:03 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 8:09:03 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 8:09:03 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:35:00 AM

Lab ID: 1511258-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 8:09:03 PM	22238
Surr: 2-Fluorophenol	75.4	4.63-113		%REC	1	11/9/2015 8:09:03 PM	22238
Surr: Phenol-d5	60.5	4.13-124		%REC	1	11/9/2015 8:09:03 PM	22238
Surr: 2,4,6-Tribromophenol	91.4	5.14-132		%REC	1	11/9/2015 8:09:03 PM	22238
Surr: Nitrobenzene-d5	84.2	9.13-140		%REC	1	11/9/2015 8:09:03 PM	22238
Surr: 2-Fluorobiphenyl	87.7	10.8-132		%REC	1	11/9/2015 8:09:03 PM	22238
Surr: 4-Terphenyl-d14	44.4	12.9-107		%REC	1	11/9/2015 8:09:03 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Toluene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Methyl tert-butyl ether (MTBE)	10	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Naphthalene	ND	2.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Acetone	ND	10		µg/L	1	11/7/2015 1:37:06 AM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Bromoform	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Bromomethane	ND	3.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
2-Butanone	ND	10		µg/L	1	11/7/2015 1:37:06 AM	R30086
Carbon disulfide	ND	10		µg/L	1	11/7/2015 1:37:06 AM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Chloroethane	ND	2.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Chloroform	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Chloromethane	ND	3.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
cis-1,2-DCE	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:35:00 AM

Lab ID: 1511258-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,1-Dichloroethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,1-Dichloroethene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,1-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
2-Hexanone	ND	10		µg/L	1	11/7/2015 1:37:06 AM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/7/2015 1:37:06 AM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
sec-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Styrene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/7/2015 1:37:06 AM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/7/2015 1:37:06 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-29

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:35:00 AM

Lab ID: 1511258-003

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	11/7/2015 1:37:06 AM	R30086
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	11/7/2015 1:37:06 AM	R30086
Surr: Dibromofluoromethane	99.0	70-130		%REC	1	11/7/2015 1:37:06 AM	R30086
Surr: Toluene-d8	99.3	70-130		%REC	1	11/7/2015 1:37:06 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:56:00 AM

Lab ID: 1511258-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/25/2015 7:39:30 PM	F30497
Lead	ND	0.00050		mg/L	1	11/18/2015 8:21:47 PM	E30317
Selenium	ND	0.050		mg/L	5	11/22/2015 6:42:25 PM	D30411
Uranium	0.15	0.0050	*	mg/L	10	11/25/2015 7:39:30 PM	F30497
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.86	0.10		mg/L	1	11/6/2015 4:32:29 PM	R30103
Chloride	510	25		mg/L	50	11/19/2015 1:18:13 PM	R30364
Bromide	2.4	0.10		mg/L	1	11/6/2015 4:32:29 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 4:32:29 PM	R30103
Sulfate	160	10		mg/L	20	11/6/2015 4:44:53 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 4:49:04 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.080	0.0020		mg/L	1	11/18/2015 5:56:15 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 5:56:15 PM	B30311
Calcium	51	1.0		mg/L	1	11/18/2015 5:56:15 PM	B30311
Chromium	ND	0.0060		mg/L	1	11/18/2015 5:56:15 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 5:56:15 PM	B30311
Iron	0.081	0.020		mg/L	1	11/18/2015 5:56:15 PM	B30311
Magnesium	9.5	1.0		mg/L	1	11/18/2015 5:56:15 PM	B30311
Manganese	0.088	0.0020	*	mg/L	1	11/18/2015 5:56:15 PM	B30311
Potassium	3.0	1.0		mg/L	1	11/18/2015 5:56:15 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 5:56:15 PM	B30311
Sodium	600	10		mg/L	10	11/19/2015 3:31:38 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 5:56:15 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.17	0.0020		mg/L	1	11/17/2015 3:08:51 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:08:51 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 3:08:51 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 3:08:51 PM	22253
Iron	7.4	0.20	*	mg/L	10	11/18/2015 1:15:03 PM	22253
Manganese	0.32	0.0020	*	mg/L	1	11/17/2015 3:08:51 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:08:51 PM	22253
Zinc	0.028	0.010		mg/L	1	11/17/2015 3:08:51 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.010		mg/L	10	11/17/2015 3:45:24 PM	22253
Lead	0.0072	0.00050		mg/L	1	11/17/2015 3:39:23 PM	22253
Selenium	0.020	0.0050		mg/L	5	11/17/2015 3:42:24 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:56:00 AM

Lab ID: 1511258-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.14	0.0050	*	mg/L	10	11/17/2015 3:45:24 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.0010		mg/L	5	11/17/2015 1:26:41 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 5:47:25 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 5:47:25 PM	22175
Surr: DNOP	115	72-136		%REC	1	11/6/2015 5:47:25 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 4:04:35 PM	R30083
Surr: BFB	76.7	57.8-137		%REC	1	11/6/2015 4:04:35 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 7:39:35 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:56:00 AM

Lab ID: 1511258-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 7:39:35 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 7:39:35 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 7:39:35 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 7:39:35 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:56:00 AM

Lab ID: 1511258-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 7:39:35 PM	22238
Surr: 2-Fluorophenol	60.8	4.63-113		%REC	1	11/9/2015 7:39:35 PM	22238
Surr: Phenol-d5	52.6	4.13-124		%REC	1	11/9/2015 7:39:35 PM	22238
Surr: 2,4,6-Tribromophenol	86.4	5.14-132		%REC	1	11/9/2015 7:39:35 PM	22238
Surr: Nitrobenzene-d5	71.4	9.13-140		%REC	1	11/9/2015 7:39:35 PM	22238
Surr: 2-Fluorobiphenyl	81.6	10.8-132		%REC	1	11/9/2015 7:39:35 PM	22238
Surr: 4-Terphenyl-d14	42.6	12.9-107		%REC	1	11/9/2015 7:39:35 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Toluene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Ethylbenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Methyl tert-butyl ether (MTBE)	10	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Naphthalene	ND	2.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
2-Methylnaphthalene	ND	4.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Acetone	ND	10		µg/L	1	11/7/2015 2:05:39 AM	R30086
Bromobenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Bromodichloromethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Bromoform	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Bromomethane	ND	3.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
2-Butanone	ND	10		µg/L	1	11/7/2015 2:05:39 AM	R30086
Carbon disulfide	ND	10		µg/L	1	11/7/2015 2:05:39 AM	R30086
Carbon Tetrachloride	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Chlorobenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Chloroethane	ND	2.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Chloroform	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Chloromethane	ND	3.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
2-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
4-Chlorotoluene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
cis-1,2-DCE	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:56:00 AM

Lab ID: 1511258-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Dibromochloromethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Dibromomethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,1-Dichloroethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,1-Dichloroethene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,3-Dichloropropane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
2,2-Dichloropropane	ND	2.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,1-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Hexachlorobutadiene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
2-Hexanone	ND	10		µg/L	1	11/7/2015 2:05:39 AM	R30086
Isopropylbenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
4-Isopropyltoluene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
4-Methyl-2-pentanone	ND	10		µg/L	1	11/7/2015 2:05:39 AM	R30086
Methylene Chloride	ND	3.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
n-Butylbenzene	ND	3.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
n-Propylbenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
sec-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Styrene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
tert-Butylbenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
trans-1,2-DCE	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Trichlorofluoromethane	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Vinyl chloride	ND	1.0		µg/L	1	11/7/2015 2:05:39 AM	R30086
Xylenes, Total	ND	1.5		µg/L	1	11/7/2015 2:05:39 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 8:56:00 AM

Lab ID: 1511258-004

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	11/7/2015 2:05:39 AM	R30086
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/7/2015 2:05:39 AM	R30086
Surr: Dibromofluoromethane	98.1	70-130		%REC	1	11/7/2015 2:05:39 AM	R30086
Surr: Toluene-d8	92.9	70-130		%REC	1	11/7/2015 2:05:39 AM	R30086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-01

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 9:27:00 AM

Lab ID: 1511258-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 6:45:29 PM	D30411
Lead	ND	0.00050		mg/L	1	11/18/2015 8:31:00 PM	E30317
Selenium	0.0072	0.0050		mg/L	5	11/22/2015 6:45:29 PM	D30411
Uranium	ND	0.00050		mg/L	1	11/18/2015 8:31:00 PM	E30317
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.1	0.10		mg/L	1	11/6/2015 4:57:18 PM	R30103
Chloride	450	25		mg/L	50	11/19/2015 1:30:38 PM	R30364
Bromide	1.0	0.10		mg/L	1	11/6/2015 4:57:18 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 4:57:18 PM	R30103
Sulfate	ND	0.50		mg/L	1	11/6/2015 4:57:18 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 5:38:41 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	2.7	0.010	*	mg/L	5	11/19/2015 3:39:08 PM	A30352
Cadmium	ND	0.0020		mg/L	1	11/18/2015 6:05:22 PM	B30311
Calcium	120	5.0		mg/L	5	11/19/2015 3:39:08 PM	A30352
Chromium	ND	0.0060		mg/L	1	11/18/2015 6:05:22 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 6:05:22 PM	B30311
Iron	4.7	0.10	*	mg/L	5	11/19/2015 3:39:08 PM	A30352
Magnesium	25	1.0		mg/L	1	11/18/2015 6:05:22 PM	B30311
Manganese	1.9	0.010	*	mg/L	5	11/19/2015 3:39:08 PM	A30352
Potassium	ND	1.0		mg/L	1	11/18/2015 6:05:22 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 6:05:22 PM	B30311
Sodium	480	5.0		mg/L	5	11/19/2015 3:39:08 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 6:05:22 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	3.0	0.020	*	mg/L	10	11/18/2015 1:17:03 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:10:43 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 3:10:43 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 3:10:43 PM	22253
Iron	8.3	0.20	*	mg/L	10	11/18/2015 1:17:03 PM	22253
Manganese	2.1	0.020	*	mg/L	10	11/18/2015 1:17:03 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:10:43 PM	22253
Zinc	0.016	0.010		mg/L	1	11/17/2015 3:10:43 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/17/2015 3:51:25 PM	22253
Lead	0.0069	0.00050		mg/L	1	11/17/2015 3:48:25 PM	22253
Selenium	0.0082	0.0050		mg/L	5	11/17/2015 3:51:25 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-01

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 9:27:00 AM

Lab ID: 1511258-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.00061	0.00050		mg/L	1	11/17/2015 3:48:25 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 12:59:47 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	200	10		mg/L	10	11/9/2015 9:44:33 AM	22175
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	11/9/2015 9:44:33 AM	22175
Surr: DNOP	0	72-136	S	%REC	10	11/9/2015 9:44:33 AM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	36	2.5		mg/L	50	11/6/2015 4:29:13 PM	R30083
Surr: BFB	91.5	57.8-137		%REC	50	11/6/2015 4:29:13 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Aniline	11	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 9:12:31 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-01

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 9:27:00 AM

Lab ID: 1511258-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 9:12:31 PM	22238
2,4-Dimethylphenol	68	10		µg/L	1	11/12/2015 9:12:31 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 9:12:31 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 9:12:31 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
1-Methylnaphthalene	200	20	D	µg/L	2	11/13/2015 5:52:34 PM	22238
2-Methylnaphthalene	87	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2-Methylphenol	49	10		µg/L	1	11/12/2015 9:12:31 PM	22238
3+4-Methylphenol	70	10		µg/L	1	11/12/2015 9:12:31 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Naphthalene	120	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 9:12:31 PM	22238
Phenanthrene	12	10		µg/L	1	11/12/2015 9:12:31 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-01

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 9:27:00 AM

Lab ID: 1511258-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	36	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 9:12:31 PM	22238
Surr: 2-Fluorophenol	61.9	4.63-113		%REC	1	11/12/2015 9:12:31 PM	22238
Surr: Phenol-d5	52.7	4.13-124		%REC	1	11/12/2015 9:12:31 PM	22238
Surr: 2,4,6-Tribromophenol	72.8	5.14-132		%REC	1	11/12/2015 9:12:31 PM	22238
Surr: Nitrobenzene-d5	86.9	9.13-140		%REC	1	11/12/2015 9:12:31 PM	22238
Surr: 2-Fluorobiphenyl	87.8	10.8-132		%REC	1	11/12/2015 9:12:31 PM	22238
Surr: 4-Terphenyl-d14	59.4	12.9-107		%REC	1	11/12/2015 9:12:31 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	10000	500		µg/L	500	11/10/2015 12:20:21 PM	R30143
Toluene	1400	500		µg/L	500	11/10/2015 12:20:21 PM	R30143
Ethylbenzene	790	500		µg/L	500	11/10/2015 12:20:21 PM	R30143
Methyl tert-butyl ether (MTBE)	390	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2,4-Trimethylbenzene	710	500		µg/L	500	11/10/2015 12:20:21 PM	R30143
1,3,5-Trimethylbenzene	54	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Naphthalene	91	10		µg/L	5	11/10/2015 2:02:14 AM	R30121
1-Methylnaphthalene	62	20		µg/L	5	11/10/2015 2:02:14 AM	R30121
2-Methylnaphthalene	32	20		µg/L	5	11/10/2015 2:02:14 AM	R30121
Acetone	ND	50		µg/L	5	11/10/2015 2:02:14 AM	R30121
Bromobenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Bromodichloromethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Bromoform	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Bromomethane	ND	15		µg/L	5	11/10/2015 2:02:14 AM	R30121
2-Butanone	ND	50		µg/L	5	11/10/2015 2:02:14 AM	R30121
Carbon disulfide	ND	50		µg/L	5	11/10/2015 2:02:14 AM	R30121
Carbon Tetrachloride	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Chlorobenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Chloroethane	ND	10		µg/L	5	11/10/2015 2:02:14 AM	R30121
Chloroform	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Chloromethane	ND	15		µg/L	5	11/10/2015 2:02:14 AM	R30121
2-Chlorotoluene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
4-Chlorotoluene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
cis-1,2-DCE	37	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-01

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 9:27:00 AM

Lab ID: 1511258-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/10/2015 2:02:14 AM	R30121
Dibromochloromethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Dibromomethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,1-Dichloroethane	74	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,1-Dichloroethene	46	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2-Dichloropropane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,3-Dichloropropane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
2,2-Dichloropropane	ND	10		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,1-Dichloropropene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Hexachlorobutadiene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
2-Hexanone	ND	50		µg/L	5	11/10/2015 2:02:14 AM	R30121
Isopropylbenzene	47	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
4-Isopropyltoluene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
4-Methyl-2-pentanone	ND	50		µg/L	5	11/10/2015 2:02:14 AM	R30121
Methylene Chloride	ND	15		µg/L	5	11/10/2015 2:02:14 AM	R30121
n-Butylbenzene	ND	15		µg/L	5	11/10/2015 2:02:14 AM	R30121
n-Propylbenzene	100	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
sec-Butylbenzene	8.4	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Styrene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
tert-Butylbenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/10/2015 2:02:14 AM	R30121
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
trans-1,2-DCE	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Trichlorofluoromethane	ND	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
1,2,3-Trichloropropane	ND	10		µg/L	5	11/10/2015 2:02:14 AM	R30121
Vinyl chloride	12	5.0		µg/L	5	11/10/2015 2:02:14 AM	R30121
Xylenes, Total	1200	7.5		µg/L	5	11/10/2015 2:02:14 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-01

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 9:27:00 AM

Lab ID: 1511258-005

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	5	11/10/2015 2:02:14 AM	R30121
Surr: 4-Bromofluorobenzene	70.8	70-130		%REC	5	11/10/2015 2:02:14 AM	R30121
Surr: Dibromofluoromethane	99.8	70-130		%REC	5	11/10/2015 2:02:14 AM	R30121
Surr: Toluene-d8	102	70-130		%REC	5	11/10/2015 2:02:14 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:12:00 AM

Lab ID: 1511258-006

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	0.0049	0.0010		mg/L	1	11/18/2015 8:34:03 PM	E30317
Lead	0.00065	0.00050		mg/L	1	11/18/2015 8:34:03 PM	E30317
Selenium	ND	0.0050		mg/L	5	11/22/2015 6:48:32 PM	D30411
Uranium	0.030	0.0025	*	mg/L	5	11/22/2015 6:48:32 PM	D30411
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	2.5	2.0		mg/L	20	11/6/2015 5:34:30 PM	R30103
Chloride	360	10		mg/L	20	11/6/2015 5:34:30 PM	R30103
Bromide	0.48	0.10		mg/L	1	11/6/2015 5:22:06 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 5:22:06 PM	R30103
Sulfate	49	0.50		mg/L	1	11/6/2015 5:22:06 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 5:51:05 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.14	0.0020		mg/L	1	11/18/2015 6:07:03 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 6:07:03 PM	B30311
Calcium	48	1.0		mg/L	1	11/18/2015 6:07:03 PM	B30311
Chromium	ND	0.0060		mg/L	1	11/18/2015 6:07:03 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 6:07:03 PM	B30311
Iron	0.25	0.020		mg/L	1	11/18/2015 6:07:03 PM	B30311
Magnesium	7.5	1.0		mg/L	1	11/18/2015 6:07:03 PM	B30311
Manganese	0.44	0.0020	*	mg/L	1	11/18/2015 6:07:03 PM	B30311
Potassium	3.0	1.0		mg/L	1	11/18/2015 6:07:03 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 6:07:03 PM	B30311
Sodium	480	10		mg/L	10	11/19/2015 3:42:58 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 6:07:03 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.17	0.0020		mg/L	1	11/17/2015 3:12:26 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:12:26 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 3:12:26 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 3:12:26 PM	22253
Iron	2.2	0.10	*	mg/L	5	11/18/2015 1:19:00 PM	22253
Manganese	0.45	0.0020	*	mg/L	1	11/17/2015 3:12:26 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:12:26 PM	22253
Zinc	0.012	0.010		mg/L	1	11/17/2015 3:12:26 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0043	0.0010		mg/L	1	11/17/2015 3:54:26 PM	22253
Lead	0.0038	0.00050		mg/L	1	11/17/2015 3:54:26 PM	22253
Selenium	ND	0.050		mg/L	5	11/17/2015 3:57:26 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:12:00 AM

Lab ID: 1511258-006

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.032	0.0025	*	mg/L	5	11/17/2015 3:57:26 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 1:01:53 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	1.0	1.0		mg/L	1	11/6/2015 6:41:18 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 6:41:18 PM	22175
Surr: DNOP	114	72-136		%REC	1	11/6/2015 6:41:18 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2.5	0.25		mg/L	5	11/6/2015 4:53:51 PM	R30083
Surr: BFB	97.5	57.8-137		%REC	5	11/6/2015 4:53:51 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Aniline	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 8:14:07 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:12:00 AM

Lab ID: 1511258-006

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 8:14:07 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 8:14:07 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 8:14:07 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Naphthalene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 8:14:07 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:12:00 AM

Lab ID: 1511258-006

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 8:14:07 PM	22238
Surr: 2-Fluorophenol	59.0	4.63-113		%REC	1	11/12/2015 8:14:07 PM	22238
Surr: Phenol-d5	58.1	4.13-124		%REC	1	11/12/2015 8:14:07 PM	22238
Surr: 2,4,6-Tribromophenol	88.5	5.14-132		%REC	1	11/12/2015 8:14:07 PM	22238
Surr: Nitrobenzene-d5	82.2	9.13-140		%REC	1	11/12/2015 8:14:07 PM	22238
Surr: 2-Fluorobiphenyl	88.4	10.8-132		%REC	1	11/12/2015 8:14:07 PM	22238
Surr: 4-Terphenyl-d14	53.7	12.9-107		%REC	1	11/12/2015 8:14:07 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	440	10		µg/L	10	11/10/2015 2:59:38 AM	R30121
Toluene	13	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Ethylbenzene	72	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Methyl tert-butyl ether (MTBE)	58	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2,4-Trimethylbenzene	8.7	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2-Dichloroethane (EDC)	4.8	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Naphthalene	2.4	2.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1-Methylnaphthalene	4.2	4.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
2-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Acetone	ND	10		µg/L	1	11/10/2015 3:28:19 AM	R30121
Bromobenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Bromodichloromethane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Bromoform	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Bromomethane	ND	3.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
2-Butanone	ND	10		µg/L	1	11/10/2015 3:28:19 AM	R30121
Carbon disulfide	ND	10		µg/L	1	11/10/2015 3:28:19 AM	R30121
Carbon Tetrachloride	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Chlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Chloroethane	ND	2.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Chloroform	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Chloromethane	ND	3.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
2-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
4-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
cis-1,2-DCE	13	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:12:00 AM

Lab ID: 1511258-006

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Dibromochloromethane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Dibromomethane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,1-Dichloroethane	66	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,1-Dichloroethene	30	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,3-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
2,2-Dichloropropane	ND	2.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,1-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Hexachlorobutadiene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
2-Hexanone	ND	10		µg/L	1	11/10/2015 3:28:19 AM	R30121
Isopropylbenzene	9.7	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
4-Isopropyltoluene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
4-Methyl-2-pentanone	ND	10		µg/L	1	11/10/2015 3:28:19 AM	R30121
Methylene Chloride	ND	3.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
n-Butylbenzene	ND	3.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
n-Propylbenzene	13	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
sec-Butylbenzene	1.6	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Styrene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
tert-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
trans-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,1,1-Trichloroethane	1.9	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Trichloroethene (TCE)	3.5	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Trichlorofluoromethane	ND	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Vinyl chloride	1.9	1.0		µg/L	1	11/10/2015 3:28:19 AM	R30121
Xylenes, Total	6.3	1.5		µg/L	1	11/10/2015 3:28:19 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:12:00 AM

Lab ID: 1511258-006

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%REC	1	11/10/2015 3:28:19 AM	R30121
Surr: 4-Bromofluorobenzene	70.6	70-130		%REC	1	11/10/2015 3:28:19 AM	R30121
Surr: Dibromofluoromethane	107	70-130		%REC	1	11/10/2015 3:28:19 AM	R30121
Surr: Toluene-d8	99.5	70-130		%REC	1	11/10/2015 3:28:19 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:30:00 AM

Lab ID: 1511258-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 6:51:35 PM	D30411
Lead	0.0011	0.00050		mg/L	1	11/18/2015 8:37:07 PM	E30317
Selenium	0.0075	0.0050		mg/L	5	11/22/2015 6:51:35 PM	D30411
Uranium	0.062	0.0025	*	mg/L	5	11/22/2015 6:51:35 PM	D30411
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.69	0.10		mg/L	1	11/6/2015 6:11:44 PM	R30103
Chloride	1000	50		mg/L	100	11/19/2015 1:43:02 PM	R30364
Bromide	0.74	0.10		mg/L	1	11/6/2015 6:11:44 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 6:11:44 PM	R30103
Sulfate	94	10		mg/L	20	11/6/2015 6:24:08 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 6:03:30 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.14	0.0020		mg/L	1	11/18/2015 6:09:11 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 6:09:11 PM	B30311
Calcium	180	10		mg/L	10	11/19/2015 3:44:54 PM	A30352
Chromium	ND	0.0060		mg/L	1	11/18/2015 6:09:11 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 6:09:11 PM	B30311
Iron	0.35	0.020	*	mg/L	1	11/18/2015 6:09:11 PM	B30311
Magnesium	28	1.0		mg/L	1	11/18/2015 6:09:11 PM	B30311
Manganese	1.0	0.020	*	mg/L	10	11/19/2015 3:44:54 PM	A30352
Potassium	4.1	1.0		mg/L	1	11/18/2015 6:09:11 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 6:09:11 PM	B30311
Sodium	860	10		mg/L	10	11/19/2015 3:44:54 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 6:09:11 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.26	0.0020		mg/L	1	11/17/2015 3:18:07 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:18:07 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 3:18:07 PM	22253
Copper	0.016	0.0060		mg/L	1	11/17/2015 3:18:07 PM	22253
Iron	9.8	0.20	*	mg/L	10	11/18/2015 1:30:16 PM	22253
Manganese	1.3	0.020	*	mg/L	10	11/18/2015 1:30:16 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:18:07 PM	22253
Zinc	0.040	0.010		mg/L	1	11/17/2015 3:18:07 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0050	0.0010		mg/L	1	11/17/2015 4:06:32 PM	22253
Lead	0.013	0.00050		mg/L	1	11/17/2015 4:06:32 PM	22253
Selenium	ND	0.050		mg/L	5	11/17/2015 4:15:34 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:30:00 AM

Lab ID: 1511258-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.059	0.0025	*	mg/L	5	11/17/2015 4:15:34 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 1:04:01 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 7:08:09 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 7:08:09 PM	22175
Surr: DNOP	117	72-136		%REC	1	11/6/2015 7:08:09 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2.3	0.25		mg/L	5	11/6/2015 5:18:21 PM	R30083
Surr: BFB	84.3	57.8-137		%REC	5	11/6/2015 5:18:21 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 8:38:31 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:30:00 AM

Lab ID: 1511258-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 8:38:31 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 8:38:31 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 8:38:31 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 8:38:31 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:30:00 AM

Lab ID: 1511258-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	19	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 8:38:31 PM	22238
Surr: 2-Fluorophenol	55.6	4.63-113		%REC	1	11/9/2015 8:38:31 PM	22238
Surr: Phenol-d5	51.3	4.13-124		%REC	1	11/9/2015 8:38:31 PM	22238
Surr: 2,4,6-Tribromophenol	70.4	5.14-132		%REC	1	11/9/2015 8:38:31 PM	22238
Surr: Nitrobenzene-d5	66.6	9.13-140		%REC	1	11/9/2015 8:38:31 PM	22238
Surr: 2-Fluorobiphenyl	67.8	10.8-132		%REC	1	11/9/2015 8:38:31 PM	22238
Surr: 4-Terphenyl-d14	40.4	12.9-107		%REC	1	11/9/2015 8:38:31 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	760	50		µg/L	50	11/10/2015 4:25:38 AM	R30121
Toluene	7.2	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Ethylbenzene	6.9	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Methyl tert-butyl ether (MTBE)	94	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2-Dichloroethane (EDC)	11	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Naphthalene	ND	10		µg/L	5	11/10/2015 4:54:16 AM	R30121
1-Methylnaphthalene	ND	20		µg/L	5	11/10/2015 4:54:16 AM	R30121
2-Methylnaphthalene	ND	20		µg/L	5	11/10/2015 4:54:16 AM	R30121
Acetone	ND	50		µg/L	5	11/10/2015 4:54:16 AM	R30121
Bromobenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Bromodichloromethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Bromoform	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Bromomethane	ND	15		µg/L	5	11/10/2015 4:54:16 AM	R30121
2-Butanone	ND	50		µg/L	5	11/10/2015 4:54:16 AM	R30121
Carbon disulfide	ND	50		µg/L	5	11/10/2015 4:54:16 AM	R30121
Carbon Tetrachloride	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Chlorobenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Chloroethane	ND	10		µg/L	5	11/10/2015 4:54:16 AM	R30121
Chloroform	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Chloromethane	ND	15		µg/L	5	11/10/2015 4:54:16 AM	R30121
2-Chlorotoluene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
4-Chlorotoluene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
cis-1,2-DCE	6.5	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:30:00 AM

Lab ID: 1511258-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/10/2015 4:54:16 AM	R30121
Dibromochloromethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Dibromomethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,1-Dichloroethane	66	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,1-Dichloroethene	48	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2-Dichloropropane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,3-Dichloropropane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
2,2-Dichloropropane	ND	10		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,1-Dichloropropene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Hexachlorobutadiene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
2-Hexanone	ND	50		µg/L	5	11/10/2015 4:54:16 AM	R30121
Isopropylbenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
4-Isopropyltoluene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
4-Methyl-2-pentanone	ND	50		µg/L	5	11/10/2015 4:54:16 AM	R30121
Methylene Chloride	ND	15		µg/L	5	11/10/2015 4:54:16 AM	R30121
n-Butylbenzene	ND	15		µg/L	5	11/10/2015 4:54:16 AM	R30121
n-Propylbenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
sec-Butylbenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Styrene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
tert-Butylbenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/10/2015 4:54:16 AM	R30121
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
trans-1,2-DCE	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Trichlorofluoromethane	ND	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
1,2,3-Trichloropropane	ND	10		µg/L	5	11/10/2015 4:54:16 AM	R30121
Vinyl chloride	7.6	5.0		µg/L	5	11/10/2015 4:54:16 AM	R30121
Xylenes, Total	ND	7.5		µg/L	5	11/10/2015 4:54:16 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:30:00 AM

Lab ID: 1511258-007

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%REC	5	11/10/2015 4:54:16 AM	R30121
Surr: 4-Bromofluorobenzene	101	70-130		%REC	5	11/10/2015 4:54:16 AM	R30121
Surr: Dibromofluoromethane	97.2	70-130		%REC	5	11/10/2015 4:54:16 AM	R30121
Surr: Toluene-d8	115	70-130		%REC	5	11/10/2015 4:54:16 AM	R30121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:56:00 AM

Lab ID: 1511258-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 6:54:39 PM	D30411
Lead	0.0016	0.00050		mg/L	1	11/18/2015 8:40:10 PM	E30317
Selenium	0.0091	0.0050		mg/L	5	11/22/2015 6:54:39 PM	D30411
Uranium	0.032	0.0025	*	mg/L	5	11/22/2015 6:54:39 PM	D30411
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.10		mg/L	1	11/6/2015 6:36:34 PM	R30103
Chloride	850	25		mg/L	50	11/19/2015 1:55:26 PM	R30364
Bromide	1.2	0.10		mg/L	1	11/6/2015 6:36:34 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 6:36:34 PM	R30103
Sulfate	68	10		mg/L	20	11/6/2015 6:48:58 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 6:15:54 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.26	0.0020		mg/L	1	11/18/2015 6:11:07 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 6:11:07 PM	B30311
Calcium	160	10		mg/L	10	11/19/2015 3:46:47 PM	A30352
Chromium	ND	0.0060		mg/L	1	11/18/2015 6:11:07 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 6:11:07 PM	B30311
Iron	0.41	0.020	*	mg/L	1	11/18/2015 6:11:07 PM	B30311
Magnesium	27	1.0		mg/L	1	11/18/2015 6:11:07 PM	B30311
Manganese	1.3	0.020	*	mg/L	10	11/19/2015 3:46:47 PM	A30352
Potassium	4.3	1.0		mg/L	1	11/18/2015 6:11:07 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 6:11:07 PM	B30311
Sodium	590	10		mg/L	10	11/19/2015 3:46:47 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 6:11:07 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.87	0.0020		mg/L	1	11/17/2015 3:19:50 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:19:50 PM	22253
Chromium	0.017	0.0060		mg/L	1	11/17/2015 3:19:50 PM	22253
Copper	0.023	0.0060		mg/L	1	11/17/2015 3:19:50 PM	22253
Iron	16	0.40	*	mg/L	20	11/18/2015 1:34:07 PM	22253
Manganese	2.7	0.010	*	mg/L	5	11/18/2015 1:32:15 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:19:50 PM	22253
Zinc	0.040	0.010		mg/L	1	11/17/2015 3:19:50 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	0.0059	0.0010		mg/L	1	11/15/2015 9:52:43 PM	22253
Lead	0.025	0.0025	*	mg/L	5	11/17/2015 4:24:35 PM	22253
Selenium	ND	0.050		mg/L	5	11/17/2015 4:24:35 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:56:00 AM

Lab ID: 1511258-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.034	0.0025	*	mg/L	5	11/17/2015 4:24:35 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 1:06:07 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 7:35:12 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 7:35:12 PM	22175
Surr: DNOP	116	72-136		%REC	1	11/6/2015 7:35:12 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	10	1.0		mg/L	20	11/6/2015 5:42:51 PM	R30083
Surr: BFB	83.7	57.8-137		%REC	20	11/6/2015 5:42:51 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Aniline	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Anthracene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Azobenzene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Benzoic acid	ND	20		µg/L	1	11/12/2015 8:43:23 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Carbazole	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Chrysene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:56:00 AM

Lab ID: 1511258-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/12/2015 8:43:23 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/12/2015 8:43:23 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/12/2015 8:43:23 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Fluoranthene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Fluorene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Isophorone	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Naphthalene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/12/2015 8:43:23 PM	22238
Phenanthrene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:56:00 AM

Lab ID: 1511258-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Pyrene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Pyridine	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/12/2015 8:43:23 PM	22238
Surr: 2-Fluorophenol	65.2	4.63-113		%REC	1	11/12/2015 8:43:23 PM	22238
Surr: Phenol-d5	61.5	4.13-124		%REC	1	11/12/2015 8:43:23 PM	22238
Surr: 2,4,6-Tribromophenol	100	5.14-132		%REC	1	11/12/2015 8:43:23 PM	22238
Surr: Nitrobenzene-d5	84.0	9.13-140		%REC	1	11/12/2015 8:43:23 PM	22238
Surr: 2-Fluorobiphenyl	84.9	10.8-132		%REC	1	11/12/2015 8:43:23 PM	22238
Surr: 4-Terphenyl-d14	58.2	12.9-107		%REC	1	11/12/2015 8:43:23 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	2800	200		µg/L	200	11/10/2015 5:51:26 AM	R30121
Toluene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Ethylbenzene	54	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Methyl tert-butyl ether (MTBE)	210	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2,4-Trimethylbenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,3,5-Trimethylbenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Naphthalene	ND	40		µg/L	20	11/10/2015 11:22:51 AM	R30143
1-Methylnaphthalene	ND	80		µg/L	20	11/10/2015 11:22:51 AM	R30143
2-Methylnaphthalene	ND	80		µg/L	20	11/10/2015 11:22:51 AM	R30143
Acetone	ND	200		µg/L	20	11/10/2015 11:22:51 AM	R30143
Bromobenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Bromodichloromethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Bromoform	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Bromomethane	ND	60		µg/L	20	11/10/2015 11:22:51 AM	R30143
2-Butanone	ND	200		µg/L	20	11/10/2015 11:22:51 AM	R30143
Carbon disulfide	ND	200		µg/L	20	11/10/2015 11:22:51 AM	R30143
Carbon Tetrachloride	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Chlorobenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Chloroethane	ND	40		µg/L	20	11/10/2015 11:22:51 AM	R30143
Chloroform	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Chloromethane	ND	60		µg/L	20	11/10/2015 11:22:51 AM	R30143
2-Chlorotoluene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
4-Chlorotoluene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
cis-1,2-DCE	34	20		µg/L	20	11/10/2015 11:22:51 AM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:56:00 AM

Lab ID: 1511258-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: AG		
cis-1,3-Dichloropropene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	11/10/2015 11:22:51 AM	R30143
Dibromochloromethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Dibromomethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2-Dichlorobenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,3-Dichlorobenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,4-Dichlorobenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Dichlorodifluoromethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,1-Dichloroethane	120	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,1-Dichloroethene	46	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2-Dichloropropane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,3-Dichloropropane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
2,2-Dichloropropane	ND	40		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,1-Dichloropropene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Hexachlorobutadiene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
2-Hexanone	ND	200		µg/L	20	11/10/2015 11:22:51 AM	R30143
Isopropylbenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
4-Isopropyltoluene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
4-Methyl-2-pentanone	ND	200		µg/L	20	11/10/2015 11:22:51 AM	R30143
Methylene Chloride	ND	60		µg/L	20	11/10/2015 11:22:51 AM	R30143
n-Butylbenzene	ND	60		µg/L	20	11/10/2015 11:22:51 AM	R30143
n-Propylbenzene	33	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
sec-Butylbenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Styrene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
tert-Butylbenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	11/10/2015 11:22:51 AM	R30143
Tetrachloroethene (PCE)	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
trans-1,2-DCE	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
trans-1,3-Dichloropropene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2,3-Trichlorobenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2,4-Trichlorobenzene	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,1,1-Trichloroethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,1,2-Trichloroethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Trichloroethene (TCE)	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Trichlorofluoromethane	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
1,2,3-Trichloropropane	ND	40		µg/L	20	11/10/2015 11:22:51 AM	R30143
Vinyl chloride	ND	20		µg/L	20	11/10/2015 11:22:51 AM	R30143
Xylenes, Total	ND	30		µg/L	20	11/10/2015 11:22:51 AM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 10:56:00 AM

Lab ID: 1511258-008

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	20	11/10/2015 11:22:51 AM	R30143
Surr: 4-Bromofluorobenzene	107	70-130		%REC	20	11/10/2015 11:22:51 AM	R30143
Surr: Dibromofluoromethane	103	70-130		%REC	20	11/10/2015 11:22:51 AM	R30143
Surr: Toluene-d8	89.8	70-130		%REC	20	11/10/2015 11:22:51 AM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 11:40:00 AM

Lab ID: 1511258-009

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 7:03:54 PM	D30411
Lead	ND	0.0025		mg/L	5	11/22/2015 7:03:54 PM	D30411
Selenium	ND	0.020		mg/L	20	11/25/2015 7:42:33 PM	F30497
Uranium	0.060	0.010	*	mg/L	20	11/25/2015 7:42:33 PM	F30497
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.10		mg/L	1	11/6/2015 7:01:24 PM	R30103
Chloride	4600	250		mg/L	500	11/19/2015 2:07:51 PM	R30364
Bromide	ND	2.0		mg/L	20	11/6/2015 7:13:48 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	11/6/2015 7:13:48 PM	R30103
Sulfate	540	10		mg/L	20	11/6/2015 7:13:48 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 6:28:18 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.15	0.0020		mg/L	1	11/18/2015 6:13:04 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 6:13:04 PM	B30311
Calcium	450	10		mg/L	10	11/19/2015 3:48:46 PM	A30352
Chromium	ND	0.0060		mg/L	1	11/18/2015 6:13:04 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 6:13:04 PM	B30311
Iron	0.051	0.020		mg/L	1	11/18/2015 6:13:04 PM	B30311
Magnesium	85	1.0		mg/L	1	11/18/2015 6:13:04 PM	B30311
Manganese	0.23	0.0020	*	mg/L	1	11/18/2015 6:13:04 PM	B30311
Potassium	10	1.0		mg/L	1	11/18/2015 6:13:04 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 6:13:04 PM	B30311
Sodium	2700	50		mg/L	50	11/19/2015 3:50:39 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 6:13:04 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.26	0.0020		mg/L	1	11/17/2015 3:21:40 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:21:40 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 3:21:40 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 3:21:40 PM	22253
Iron	5.5	0.20	*	mg/L	10	11/18/2015 7:21:59 PM	22253
Manganese	0.32	0.0020	*	mg/L	1	11/17/2015 3:21:40 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:21:40 PM	22253
Zinc	0.024	0.010		mg/L	1	11/17/2015 3:21:40 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/17/2015 4:27:35 PM	22253
Lead	0.0066	0.0025		mg/L	5	11/17/2015 4:27:35 PM	22253
Selenium	ND	0.020		mg/L	20	11/20/2015 8:23:47 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 11:40:00 AM

Lab ID: 1511258-009

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.060	0.0025	*	mg/L	5	11/17/2015 4:27:35 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 1:08:16 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/6/2015 8:02:09 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 8:02:09 PM	22175
Surr: DNOP	114	72-136		%REC	1	11/6/2015 8:02:09 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 6:07:18 PM	R30083
Surr: BFB	77.1	57.8-137		%REC	1	11/6/2015 6:07:18 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 6:10:43 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 11:40:00 AM

Lab ID: 1511258-009

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 6:10:43 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 6:10:43 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 6:10:43 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 6:10:43 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 11:40:00 AM

Lab ID: 1511258-009

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 6:10:43 PM	22238
Surr: 2-Fluorophenol	76.3	4.63-113		%REC	1	11/9/2015 6:10:43 PM	22238
Surr: Phenol-d5	65.2	4.13-124		%REC	1	11/9/2015 6:10:43 PM	22238
Surr: 2,4,6-Tribromophenol	83.7	5.14-132		%REC	1	11/9/2015 6:10:43 PM	22238
Surr: Nitrobenzene-d5	85.0	9.13-140		%REC	1	11/9/2015 6:10:43 PM	22238
Surr: 2-Fluorobiphenyl	90.7	10.8-132		%REC	1	11/9/2015 6:10:43 PM	22238
Surr: 4-Terphenyl-d14	54.3	12.9-107		%REC	1	11/9/2015 6:10:43 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Toluene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Ethylbenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Naphthalene	ND	2.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
2-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Acetone	ND	10		µg/L	1	11/10/2015 12:49:15 PM	R30143
Bromobenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Bromodichloromethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Bromoform	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Bromomethane	ND	3.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
2-Butanone	ND	10		µg/L	1	11/10/2015 12:49:15 PM	R30143
Carbon disulfide	ND	10		µg/L	1	11/10/2015 12:49:15 PM	R30143
Carbon Tetrachloride	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Chlorobenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Chloroethane	ND	2.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Chloroform	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Chloromethane	ND	3.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
2-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
4-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
cis-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 11:40:00 AM

Lab ID: 1511258-009

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Dibromochloromethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Dibromomethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,1-Dichloroethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,1-Dichloroethene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,3-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
2,2-Dichloropropane	ND	2.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,1-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Hexachlorobutadiene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
2-Hexanone	ND	10		µg/L	1	11/10/2015 12:49:15 PM	R30143
Isopropylbenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
4-Isopropyltoluene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
4-Methyl-2-pentanone	ND	10		µg/L	1	11/10/2015 12:49:15 PM	R30143
Methylene Chloride	ND	3.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
n-Butylbenzene	ND	3.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
n-Propylbenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
sec-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Styrene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
tert-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
trans-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Trichlorofluoromethane	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Vinyl chloride	ND	1.0		µg/L	1	11/10/2015 12:49:15 PM	R30143
Xylenes, Total	ND	1.5		µg/L	1	11/10/2015 12:49:15 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-40

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 11:40:00 AM

Lab ID: 1511258-009

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	1	11/10/2015 12:49:15 PM	R30143
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/10/2015 12:49:15 PM	R30143
Surr: Dibromofluoromethane	99.8	70-130		%REC	1	11/10/2015 12:49:15 PM	R30143
Surr: Toluene-d8	93.3	70-130		%REC	1	11/10/2015 12:49:15 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 12:10:00 PM

Lab ID: 1511258-010

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: TES
Arsenic	ND	0.0050		mg/L	5	11/22/2015 7:06:57 PM	D30411
Lead	ND	0.00050		mg/L	1	11/18/2015 8:46:17 PM	E30317
Selenium	0.0085	0.0050		mg/L	5	11/22/2015 7:06:57 PM	D30411
Uranium	0.042	0.0025	*	mg/L	5	12/2/2015 5:35:08 PM	A30584
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.10		mg/L	1	11/6/2015 7:26:12 PM	R30103
Chloride	850	25		mg/L	50	11/19/2015 2:20:16 PM	R30364
Bromide	0.85	0.10		mg/L	1	11/6/2015 7:26:12 PM	R30103
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/6/2015 7:26:12 PM	R30103
Sulfate	69	10		mg/L	20	11/6/2015 7:38:37 PM	R30103
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/6/2015 6:40:43 PM	R30096
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.14	0.0020		mg/L	1	11/18/2015 6:15:05 PM	B30311
Cadmium	ND	0.0020		mg/L	1	11/18/2015 6:15:05 PM	B30311
Calcium	160	10		mg/L	10	11/19/2015 3:52:35 PM	A30352
Chromium	ND	0.0060		mg/L	1	11/18/2015 6:15:05 PM	B30311
Copper	ND	0.0060		mg/L	1	11/18/2015 6:15:05 PM	B30311
Iron	ND	0.020		mg/L	1	11/18/2015 6:15:05 PM	B30311
Magnesium	34	1.0		mg/L	1	11/18/2015 6:15:05 PM	B30311
Manganese	0.033	0.0020		mg/L	1	11/18/2015 6:15:05 PM	B30311
Potassium	1.9	1.0		mg/L	1	11/18/2015 6:15:05 PM	B30311
Silver	ND	0.0050		mg/L	1	11/18/2015 6:15:05 PM	B30311
Sodium	520	10		mg/L	10	11/19/2015 3:52:35 PM	A30352
Zinc	ND	0.010		mg/L	1	11/18/2015 6:15:05 PM	B30311
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.26	0.0020		mg/L	1	11/17/2015 3:23:30 PM	22253
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:23:30 PM	22253
Chromium	ND	0.0060		mg/L	1	11/17/2015 3:23:30 PM	22253
Copper	ND	0.0060		mg/L	1	11/17/2015 3:23:30 PM	22253
Iron	4.0	0.10	*	mg/L	5	11/18/2015 1:38:06 PM	22253
Manganese	0.25	0.0020	*	mg/L	1	11/17/2015 3:23:30 PM	22253
Silver	ND	0.0050		mg/L	1	11/17/2015 3:23:30 PM	22253
Zinc	0.015	0.010		mg/L	1	11/17/2015 3:23:30 PM	22253
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/17/2015 4:30:36 PM	22253
Lead	0.0064	0.00050		mg/L	1	11/15/2015 10:03:00 PM	22253
Selenium	ND	0.020		mg/L	20	11/20/2015 8:26:47 PM	22253

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 12:10:00 PM

Lab ID: 1511258-010

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Uranium	0.041	0.0025	*	mg/L	5	11/17/2015 4:30:36 PM	22253
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 1:10:23 PM	22360
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	11/6/2015 8:28:58 PM	22175
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/6/2015 8:28:58 PM	22175
Surr: DNOP	119	72-136		%REC	1	11/6/2015 8:28:58 PM	22175
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.086	0.050		mg/L	1	11/6/2015 6:31:48 PM	R30083
Surr: BFB	77.3	57.8-137		%REC	1	11/6/2015 6:31:48 PM	R30083
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 6:40:26 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 12:10:00 PM

Lab ID: 1511258-010

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 6:40:26 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 6:40:26 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 6:40:26 PM	22238
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 6:40:26 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 12:10:00 PM

Lab ID: 1511258-010

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 6:40:26 PM	22238
Surr: 2-Fluorophenol	56.6	4.63-113		%REC	1	11/9/2015 6:40:26 PM	22238
Surr: Phenol-d5	65.9	4.13-124		%REC	1	11/9/2015 6:40:26 PM	22238
Surr: 2,4,6-Tribromophenol	76.4	5.14-132		%REC	1	11/9/2015 6:40:26 PM	22238
Surr: Nitrobenzene-d5	91.3	9.13-140		%REC	1	11/9/2015 6:40:26 PM	22238
Surr: 2-Fluorobiphenyl	94.8	10.8-132		%REC	1	11/9/2015 6:40:26 PM	22238
Surr: 4-Terphenyl-d14	54.6	12.9-107		%REC	1	11/9/2015 6:40:26 PM	22238
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Toluene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Ethylbenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Methyl tert-butyl ether (MTBE)	79	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2-Dichloroethane (EDC)	22	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Naphthalene	ND	2.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
2-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Acetone	ND	10		µg/L	1	11/10/2015 2:15:42 PM	R30143
Bromobenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Bromodichloromethane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Bromoform	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Bromomethane	ND	3.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
2-Butanone	ND	10		µg/L	1	11/10/2015 2:15:42 PM	R30143
Carbon disulfide	ND	10		µg/L	1	11/10/2015 2:15:42 PM	R30143
Carbon Tetrachloride	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Chlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Chloroethane	ND	2.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Chloroform	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Chloromethane	ND	3.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
2-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
4-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
cis-1,2-DCE	2.1	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 12:10:00 PM

Lab ID: 1511258-010

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: AG			
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Dibromochloromethane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Dibromomethane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,1-Dichloroethane	33	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,1-Dichloroethene	57	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,3-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
2,2-Dichloropropane	ND	2.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,1-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Hexachlorobutadiene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
2-Hexanone	ND	10		µg/L	1	11/10/2015 2:15:42 PM	R30143
Isopropylbenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
4-Isopropyltoluene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
4-Methyl-2-pentanone	ND	10		µg/L	1	11/10/2015 2:15:42 PM	R30143
Methylene Chloride	ND	3.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
n-Butylbenzene	ND	3.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
n-Propylbenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
sec-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Styrene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
tert-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
trans-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,1,1-Trichloroethane	5.0	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,1,2-Trichloroethane	2.1	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Trichloroethene (TCE)	3.5	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Trichlorofluoromethane	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Vinyl chloride	ND	1.0		µg/L	1	11/10/2015 2:15:42 PM	R30143
Xylenes, Total	ND	1.5		µg/L	1	11/10/2015 2:15:42 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 12:10:00 PM

Lab ID: 1511258-010

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	11/10/2015 2:15:42 PM	R30143
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	11/10/2015 2:15:42 PM	R30143
Surr: Dibromofluoromethane	102	70-130		%REC	1	11/10/2015 2:15:42 PM	R30143
Surr: Toluene-d8	94.2	70-130		%REC	1	11/10/2015 2:15:42 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:00:00 AM

Lab ID: 1511258-011

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/6/2015 6:56:37 PM	R30083
Surr: BFB	78.9	57.8-137		%REC	1	11/6/2015 6:56:37 PM	R30083
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Toluene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Ethylbenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Naphthalene	ND	2.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
2-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Acetone	ND	10		µg/L	1	11/10/2015 2:44:35 PM	R30143
Bromobenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Bromodichloromethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Bromoform	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Bromomethane	ND	3.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
2-Butanone	ND	10		µg/L	1	11/10/2015 2:44:35 PM	R30143
Carbon disulfide	ND	10		µg/L	1	11/10/2015 2:44:35 PM	R30143
Carbon Tetrachloride	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Chlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Chloroethane	ND	2.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Chloroform	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Chloromethane	ND	3.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
2-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
4-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
cis-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Dibromochloromethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Dibromomethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,1-Dichloroethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,1-Dichloroethene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:00:00 AM

Lab ID: 1511258-011

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,2-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,3-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
2,2-Dichloropropane	ND	2.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,1-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Hexachlorobutadiene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
2-Hexanone	ND	10		µg/L	1	11/10/2015 2:44:35 PM	R30143
Isopropylbenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
4-Isopropyltoluene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
4-Methyl-2-pentanone	ND	10		µg/L	1	11/10/2015 2:44:35 PM	R30143
Methylene Chloride	ND	3.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
n-Butylbenzene	ND	3.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
n-Propylbenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
sec-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Styrene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
tert-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
trans-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Trichlorofluoromethane	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Vinyl chloride	ND	1.0		µg/L	1	11/10/2015 2:44:35 PM	R30143
Xylenes, Total	ND	1.5		µg/L	1	11/10/2015 2:44:35 PM	R30143
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	11/10/2015 2:44:35 PM	R30143
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	1	11/10/2015 2:44:35 PM	R30143
Surr: Dibromofluoromethane	98.7	70-130		%REC	1	11/10/2015 2:44:35 PM	R30143
Surr: Toluene-d8	93.0	70-130		%REC	1	11/10/2015 2:44:35 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:00:00 AM

Lab ID: 1511258-012

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
Benzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Toluene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Ethylbenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Naphthalene	ND	2.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
2-Methylnaphthalene	ND	4.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Acetone	14	10		µg/L	1	11/10/2015 3:13:31 PM	R30143
Bromobenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Bromodichloromethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Bromoform	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Bromomethane	ND	3.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
2-Butanone	ND	10		µg/L	1	11/10/2015 3:13:31 PM	R30143
Carbon disulfide	ND	10		µg/L	1	11/10/2015 3:13:31 PM	R30143
Carbon Tetrachloride	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Chlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Chloroethane	ND	2.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Chloroform	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Chloromethane	ND	3.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
2-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
4-Chlorotoluene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
cis-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Dibromochloromethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Dibromomethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,1-Dichloroethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,1-Dichloroethene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,3-Dichloropropane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
2,2-Dichloropropane	ND	2.0		µg/L	1	11/10/2015 3:13:31 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:00:00 AM

Lab ID: 1511258-012

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: AG
1,1-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Hexachlorobutadiene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
2-Hexanone	ND	10		µg/L	1	11/10/2015 3:13:31 PM	R30143
Isopropylbenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
4-Isopropyltoluene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
4-Methyl-2-pentanone	ND	10		µg/L	1	11/10/2015 3:13:31 PM	R30143
Methylene Chloride	ND	3.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
n-Butylbenzene	ND	3.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
n-Propylbenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
sec-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Styrene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
tert-Butylbenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
trans-1,2-DCE	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Trichlorofluoromethane	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Vinyl chloride	ND	1.0		µg/L	1	11/10/2015 3:13:31 PM	R30143
Xylenes, Total	ND	1.5		µg/L	1	11/10/2015 3:13:31 PM	R30143
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%REC	1	11/10/2015 3:13:31 PM	R30143
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	11/10/2015 3:13:31 PM	R30143
Surr: Dibromofluoromethane	104	70-130		%REC	1	11/10/2015 3:13:31 PM	R30143
Surr: Toluene-d8	89.6	70-130		%REC	1	11/10/2015 3:13:31 PM	R30143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:00:00 AM

Lab ID: 1511258-013

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Acenaphthylene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Aniline	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Anthracene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Azobenzene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Benz(a)anthracene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Benzo(a)pyrene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Benzo(b)fluoranthene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Benzo(k)fluoranthene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Benzoic acid	ND	20		µg/L	1	11/9/2015 7:10:04 PM	22238
Benzyl alcohol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Butyl benzyl phthalate	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Carbazole	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
4-Chloroaniline	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2-Chloronaphthalene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2-Chlorophenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Chrysene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Di-n-butyl phthalate	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Di-n-octyl phthalate	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Dibenzofuran	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
1,2-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
1,3-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
1,4-Dichlorobenzene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Diethyl phthalate	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Dimethyl phthalate	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2,4-Dichlorophenol	ND	20		µg/L	1	11/9/2015 7:10:04 PM	22238
2,4-Dimethylphenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/9/2015 7:10:04 PM	22238
2,4-Dinitrophenol	ND	20		µg/L	1	11/9/2015 7:10:04 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511258

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Blind Duplicate

Project: 2015 4th QTR MKTF WELLS

Collection Date: 11/4/2015 7:00:00 AM

Lab ID: 1511258-013

Matrix: AQUEOUS

Received Date: 11/5/2015 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2,6-Dinitrotoluene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Fluoranthene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Fluorene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Hexachlorobenzene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Hexachlorobutadiene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Hexachloroethane	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Isophorone	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
1-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2-Methylnaphthalene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2-Methylphenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
3+4-Methylphenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
N-Nitrosodimethylamine	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Naphthalene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2-Nitroaniline	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
3-Nitroaniline	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
4-Nitroaniline	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Nitrobenzene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2-Nitrophenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
4-Nitrophenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Pentachlorophenol	ND	20		µg/L	1	11/9/2015 7:10:04 PM	22238
Phenanthrene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Phenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Pyrene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Pyridine	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/9/2015 7:10:04 PM	22238
Surr: 2-Fluorophenol	55.5	4.63-113		%REC	1	11/9/2015 7:10:04 PM	22238
Surr: Phenol-d5	50.8	4.13-124		%REC	1	11/9/2015 7:10:04 PM	22238
Surr: 2,4,6-Tribromophenol	69.6	5.14-132		%REC	1	11/9/2015 7:10:04 PM	22238
Surr: Nitrobenzene-d5	69.8	9.13-140		%REC	1	11/9/2015 7:10:04 PM	22238
Surr: 2-Fluorobiphenyl	72.7	10.8-132		%REC	1	11/9/2015 7:10:04 PM	22238
Surr: 4-Terphenyl-d14	40.9	12.9-107		%REC	1	11/9/2015 7:10:04 PM	22238

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-B	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	B30311	RunNo:	30311					
Prep Date:		Analysis Date:	11/18/2015	SeqNo:	924772	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-B	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	B30311	RunNo:	30311					
Prep Date:		Analysis Date:	11/18/2015	SeqNo:	924776	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.49	0.0020	0.5000	0	98.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.49	0.0060	0.5000	0	98.8	85	115			
Iron	0.48	0.020	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.6	85	115			
Manganese	0.48	0.0020	0.5000	0	96.0	85	115			
Potassium	49	1.0	50.00	0	98.5	85	115			
Silver	0.099	0.0050	0.1000	0	99.2	85	115			
Zinc	0.49	0.010	0.5000	0	97.4	85	115			

Sample ID	LLLCS-B	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	B30311	RunNo:	30311					
Prep Date:		Analysis Date:	11/18/2015	SeqNo:	924777	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.0026	0.0020	0.002000	0	132	50	150			
Cadmium	ND	0.0020	0.002000	0	96.0	50	150			
Chromium	0.0064	0.0060	0.006000	0	107	50	150			
Copper	0.0072	0.0060	0.006000	0	120	50	150			
Iron	0.029	0.020	0.02000	0	146	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID LLCS-B	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: B30311			RunNo: 30311						
Prep Date:	Analysis Date: 11/18/2015			SeqNo: 924777		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0023	0.0020	0.002000	0	114	50	150			
Potassium	ND	1.0	0.5000	0	107	50	150			
Silver	ND	0.0050	0.005000	0	71.6	50	150			

Sample ID LLCS-B	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: B30311			RunNo: 30311						
Prep Date:	Analysis Date: 11/18/2015			SeqNo: 924963		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	104	50	150			
Zinc	ND	0.010	0.005000	0	108	50	150			

Sample ID MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: A30352			RunNo: 30352						
Prep Date:	Analysis Date: 11/19/2015			SeqNo: 926391		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Manganese	ND	0.0020								
Sodium	ND	1.0								

Sample ID LCS-A	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: A30352			RunNo: 30352						
Prep Date:	Analysis Date: 11/19/2015			SeqNo: 926392		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.3	85	115			
Calcium	49	1.0	50.00	0	97.7	85	115			
Iron	0.48	0.020	0.5000	0	95.9	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Sodium	47	1.0	50.00	0	93.8	85	115			

Sample ID LLCS-A	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: A30352			RunNo: 30352						
Prep Date:	Analysis Date: 11/19/2015			SeqNo: 926393		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	87.0	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LLLCS-A	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A30352	RunNo:	30352					
Prep Date:		Analysis Date:	11/19/2015	SeqNo:	926393	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	105	50	150			
Iron	ND	0.020	0.02000	0	99.7	50	150			
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Sodium	ND	1.0	0.5000	0	93.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22253		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 22253		RunNo: 30187					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 919748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LLCS-22253		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 22253		RunNo: 30187					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 919749		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0028	0.0020	0.002000	0	140	50	150			
Cadmium	0.0022	0.0020	0.002000	0	109	50	150			
Chromium	0.0063	0.0060	0.006000	0	105	50	150			
Copper	ND	0.0060	0.006000	0	96.7	50	150			
Iron	ND	0.020	0.02000	0	76.7	50	150			
Manganese	0.0020	0.0020	0.002000	0	101	50	150			
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Zinc	ND	0.010	0.005000	0	119	50	150			

Sample ID	LCS-22253		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 22253		RunNo: 30187					
Prep Date:	11/9/2015		Analysis Date: 11/12/2015		SeqNo: 919750		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.46	0.020	0.5000	0	91.4	85	115			
Manganese	0.47	0.0020	0.5000	0	94.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.47	0.010	0.5000	0	93.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511258-006EMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-02		Batch ID: 22253			RunNo: 30284				
Prep Date:	11/9/2015		Analysis Date: 11/17/2015			SeqNo: 924028		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1680	97.4	70	130			
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Chromium	0.49	0.0060	0.5000	0.002480	97.3	70	130			
Copper	0.55	0.0060	0.5000	0	111	70	130			
Manganese	0.93	0.0020	0.5000	0.4507	95.6	70	130			
Silver	0.10	0.0050	0.1000	0	105	70	130			
Zinc	0.48	0.010	0.5000	0.01187	94.3	70	130			

Sample ID	1511258-006EMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-02		Batch ID: 22253			RunNo: 30284				
Prep Date:	11/9/2015		Analysis Date: 11/17/2015			SeqNo: 924029		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1680	97.3	70	130	0.0840	20	
Cadmium	0.50	0.0020	0.5000	0	100	70	130	0.912	20	
Chromium	0.49	0.0060	0.5000	0.002480	97.2	70	130	0.108	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	0.683	20	
Manganese	0.92	0.0020	0.5000	0.4507	93.4	70	130	1.18	20	
Silver	0.095	0.0050	0.1000	0	95.3	70	130	9.66	20	
Zinc	0.48	0.010	0.5000	0.01187	94.0	70	130	0.315	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511258-010DMSLL			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	MKTF-31			Batch ID:	E30317		RunNo:	30317			
Prep Date:				Analysis Date:	11/18/2015		SeqNo:	926089		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.013	0.00050	0.01250	.00008980	103	70	130				

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: E30317		RunNo: 30317					
Prep Date:			Analysis Date: 11/18/2015		SeqNo: 926092		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.4	85	115			
Lead	0.012	0.00050	0.01250	0	93.6	85	115			
Selenium	0.025	0.0010	0.02500	0	99.6	85	115			
Uranium	0.012	0.00050	0.01250	0	94.5	85	115			

Sample ID	LLLCS			SampType:	LCSLL			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	E30317			RunNo:	30317		
Prep Date:				Analysis Date:	11/18/2015			SeqNo:	926095		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.0010	0.0010	0.001000	0	100	50	150				
Lead	0.00060	0.00050	0.0005000	0	120	50	150				
Selenium	ND	0.0010	0.001000	0	99.7	50	150				
Uranium	ND	0.00050	0.0005000	0	97.7	50	150				

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: E30317			RunNo: 30317					
Prep Date:		Analysis Date: 11/18/2015			SeqNo: 926098		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	1511258-010DMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	MKTF-31		Batch ID: D30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928174		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.003084	100	70	130			
Selenium	0.13	0.0050	0.1250	0.008500	99.3	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: D30411		RunNo: 30411					
Prep Date:			Analysis Date: 11/22/2015		SeqNo: 928187		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.0	85	115			
Lead	0.012	0.00050	0.01250	0	93.3	85	115			
Selenium	0.024	0.0010	0.02500	0	97.5	85	115			
Uranium	0.011	0.00050	0.01250	0	89.5	85	115			

Sample ID	LCSLL			SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC			Batch ID: D30411		RunNo: 30411				
Prep Date:				Analysis Date: 11/22/2015		SeqNo: 928188		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.8	50	150			
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	110	50	150			
Uranium	ND	0.00050	0.0005000	0	93.1	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: D30411			RunNo: 30411					
Prep Date:		Analysis Date: 11/22/2015			SeqNo: 928189		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: F30497		RunNo: 30497					
Prep Date:			Analysis Date: 11/25/2015		SeqNo: 931125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Selenium	0.023	0.0010	0.02500	0	91.5	85	115			
Uranium	0.012	0.00050	0.01250	0	99.2	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: F30497		RunNo: 30497					
Prep Date:			Analysis Date: 11/25/2015		SeqNo: 931128		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	88.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	F30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931128	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010	0.001000	0	92.4	50	150			
Uranium	ND	0.00050	0.0005000	0	97.2	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	F30497	RunNo:	30497					
Prep Date:		Analysis Date:	11/25/2015	SeqNo:	931131	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933680	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	96.5	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933681	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050	0.0005000	0	96.1	50	150			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	A30584	RunNo:	30584					
Prep Date:		Analysis Date:	12/2/2015	SeqNo:	933682	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22253		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	22253		RunNo:	30208			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	920658		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22253		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	22253		RunNo:	30208			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	920661		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.013	0.00050	0.01250	0	104	85	115			
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			
Uranium	0.013	0.00050	0.01250	0	104	85	115			

Sample ID	MSLLCS-22253		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	22253		RunNo:	30208			
Prep Date:	11/9/2015		Analysis Date:	11/12/2015		SeqNo:	920664		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	ND	0.00050	0.0005000	0	97.6	50	150			
Selenium	ND	0.0010	0.001000	0	81.4	50	150			
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Sample ID	1511258-007EMSDL		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-26		Batch ID:	22253		RunNo:	30297			
Prep Date:	11/9/2015		Analysis Date:	11/17/2015		SeqNo:	924289		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.050	0.02500	0.009118	80.4	70	130	0	20	

Sample ID	1511258-007EMSDL		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-26		Batch ID:	22253		RunNo:	30297			
Prep Date:	11/9/2015		Analysis Date:	11/17/2015		SeqNo:	924290		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.010	0.02500	0.005025	79.4	70	130	0.469	20	
Lead	0.024	0.00050	0.01250	0.01265	90.4	70	130	1.77	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511258-007EMSL			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-26			Batch ID:	22253			RunNo:	30297		
Prep Date:	11/9/2015			Analysis Date:	11/17/2015			SeqNo:	924291		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	ND	0.050	0.02500	0.009118	89.0	70	130				

Sample ID	1511258-007EMSL			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-26			Batch ID:	22253			RunNo:	30297		
Prep Date:	11/9/2015			Analysis Date:	11/17/2015			SeqNo:	924292		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.010	0.02500	0.005025	79.9	70	130				
Lead	0.024	0.00050	0.01250	0.01265	93.8	70	130				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22341		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22341		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921328		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-22341		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22341		RunNo: 30233					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 921336		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0061	0.00020	0.005000	0	121	80	120			S

Sample ID	MB-22360		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22360		RunNo: 30290					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923889		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22360		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22360		RunNo: 30290					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923890		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.0	80	120			

Sample ID	1511258-004EMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	MKTF-28			Batch ID:	22360		RunNo:	30290			
Prep Date:	11/16/2015			Analysis Date:	11/17/2015		SeqNo:	923912		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0048	0.0010	0.005000	0	95.8	75	125	1.95	20		

Sample ID	1511258-004EMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	MKTF-28		Batch ID: 22360		RunNo: 30290					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923913		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.0010	0.005000	0	94.0	75	125			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30096	RunNo:	30096					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916771	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30096	RunNo:	30096					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916772	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30103	RunNo:	30103					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916918	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30103	RunNo:	30103					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916919	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.5	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30364	RunNo:	30364					
Prep Date:		Analysis Date:	11/19/2015	SeqNo:	926959	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R30364		RunNo: 30364					
Prep Date:			Analysis Date: 11/19/2015		SeqNo: 926960		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	MB-22175	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 22175			RunNo: 30057					
Prep Date:	11/4/2015	Analysis Date: 11/6/2015			SeqNo: 915909		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	72	136			

Sample ID	LCS-22175		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 22175		RunNo: 30057					
Prep Date:	11/4/2015		Analysis Date: 11/6/2015		SeqNo: 915910		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	52.4	154			
Surr: DNOP	0.55		0.5000		111	72	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R30083	RunNo:	30083					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916424	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		78.0	57.8	137			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R30083	RunNo:	30083					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916425	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.0	80	120			
Surr: BFB	19		20.00		95.4	57.8	137			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	100ng lcs3		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R30086		RunNo: 30086					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916525		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		99.9	70	130			

Sample ID	rb3		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW		Batch ID: R30086		RunNo: 30086					
Prep Date:			Analysis Date: 11/6/2015		SeqNo: 916527		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30086	RunNo:	30086					
Prep Date:		Analysis Date:	11/6/2015	SeqNo:	916527	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb3		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R30086		RunNo:	30086			
Prep Date:			Analysis Date:	11/6/2015		SeqNo:	916527	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	100ng lcs3		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R30121		RunNo:	30121			
Prep Date:			Analysis Date:	11/9/2015		SeqNo:	917619	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	115	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.9	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.4	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.4	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID	rb6		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R30121		RunNo:	30121			
Prep Date:			Analysis Date:	11/10/2015		SeqNo:	917912	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb6	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30121	RunNo:	30121					
Prep Date:		Analysis Date:	11/10/2015	SeqNo:	917912	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID rb6	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30121			RunNo: 30121						
Prep Date:	Analysis Date: 11/10/2015			SeqNo: 917912		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.6	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R30143			RunNo: 30143						
Prep Date:	Analysis Date: 11/10/2015			SeqNo: 918499		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	19	1.0	20.00	0	95.6	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	116	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		111	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.7	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.2		10.00		91.8	70	130			

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R30143			RunNo: 30143						
Prep Date:	Analysis Date: 11/10/2015			SeqNo: 918500		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30143			RunNo: 30143					
Prep Date:		Analysis Date: 11/10/2015			SeqNo: 918500		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30143			RunNo: 30143					
Prep Date:		Analysis Date: 11/10/2015			SeqNo: 918500		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.4	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID	1511258-009ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	MKTF-40	Batch ID: R30143			RunNo: 30143					
Prep Date:		Analysis Date: 11/10/2015			SeqNo: 918508		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0.2128	111	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.4	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	1511258-009ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	MKTF-40	Batch ID: R30143			RunNo: 30143					
Prep Date:		Analysis Date: 11/10/2015			SeqNo: 918508		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.6		10.00		96.4	70	130			

Sample ID	1511258-009amsd	SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	MKTF-40	Batch ID:	R30143		RunNo:	30143				
Prep Date:		Analysis Date:	11/10/2015		SeqNo:	918509		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.2128	98.6	70	130	12.0	20	
Toluene	20	1.0	20.00	0	102	70	130	0.517	20	
Chlorobenzene	21	1.0	20.00	0	103	70	130	1.43	20	
1,1-Dichloroethene	19	1.0	20.00	0	97.2	70	130	1.25	20	
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130	0.553	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		101	70	130	0	0	
Surr: Toluene-d8	9.7		10.00		97.2	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	mb-22238	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	22238	RunNo:	30112					
Prep Date:	11/9/2015	Analysis Date:	11/9/2015	SeqNo:	917465	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	mb-22238	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	22238	RunNo:	30112					
Prep Date:	11/9/2015	Analysis Date:	11/9/2015	SeqNo:	917465	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	150		200.0		76.3	4.63	113			
Surr: Phenol-d5	150		200.0		76.9	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	5.14	132			
Surr: Nitrobenzene-d5	78		100.0		77.8	9.13	140			
Surr: 2-Fluorobiphenyl	84		100.0		84.5	10.8	132			
Surr: 4-Terphenyl-d14	48		100.0		47.8	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511258

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF WELLS

Sample ID	Ics-22238		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 22238		RunNo: 30112					
Prep Date:	11/9/2015		Analysis Date: 11/9/2015		SeqNo: 917466		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	75	10	100.0	0	75.3	40.2	107			
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	48.2	107			
2-Chlorophenol	170	10	200.0	0	85.2	42.5	106			
1,4-Dichlorobenzene	74	10	100.0	0	73.8	31.6	111			
2,4-Dinitrotoluene	63	10	100.0	0	62.7	33.6	86.5			
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.5	44	106			
4-Nitrophenol	130	10	200.0	0	66.7	25.5	109			
Pentachlorophenol	110	20	200.0	0	57.4	38.8	97.8			
Phenol	160	10	200.0	0	80.8	22.7	116			
Pyrene	87	10	100.0	0	87.0	29.3	138			
1,2,4-Trichlorobenzene	86	10	100.0	0	85.7	35.3	123			
Surr: 2-Fluorophenol	140		200.0		72.2	4.63	113			
Surr: Phenol-d5	160		200.0		78.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		75.5	5.14	132			
Surr: Nitrobenzene-d5	78		100.0		78.4	9.13	140			
Surr: 2-Fluorobiphenyl	77		100.0		77.1	10.8	132			
Surr: 4-Terphenyl-d14	51		100.0		50.7	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1511258

RcptNo: 1

Received by/date:

CS 11/05/15

Logged By: Celina Sessa

11/5/2015 3:50:00 PM

Celina Sessa

Completed By: Celina Sessa

11/5/2015 4:46:17 PM

Celina Sessa

Reviewed By:

[Signature]

11/06/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of >0° C to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH.

20

(2 or >12 unless noted)

Adjusted?

[Signature]

Checked by:

[Signature]

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 09, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4th QTR (MKTF)

OrderNo.: 1511373

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 11/9/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:00:00 AM

Lab ID: 1511373-001

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Benzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Toluene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Ethylbenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Naphthalene	ND	2.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
2-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Acetone	14	10		µg/L	1	11/11/2015 5:31:20 PM	R30176
Bromobenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Bromoform	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Bromomethane	ND	3.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
2-Butanone	ND	10		µg/L	1	11/11/2015 5:31:20 PM	R30176
Carbon disulfide	ND	10		µg/L	1	11/11/2015 5:31:20 PM	R30176
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Chlorobenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Chloroethane	ND	2.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Chloroform	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Chloromethane	ND	3.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Dibromomethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2015 5:31:20 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:00:00 AM

Lab ID: 1511373-001

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
2-Hexanone	ND	10		µg/L	1	11/11/2015 5:31:20 PM	R30176
Isopropylbenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
4-Isopropyltoluene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2015 5:31:20 PM	R30176
Methylene Chloride	ND	3.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
n-Butylbenzene	ND	3.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
n-Propylbenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
sec-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Styrene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Vinyl chloride	ND	1.0		µg/L	1	11/11/2015 5:31:20 PM	R30176
Xylenes, Total	ND	1.5		µg/L	1	11/11/2015 5:31:20 PM	R30176
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	1	11/11/2015 5:31:20 PM	R30176
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1	11/11/2015 5:31:20 PM	R30176
Surr: Dibromofluoromethane	88.6	70-130		%REC	1	11/11/2015 5:31:20 PM	R30176
Surr: Toluene-d8	94.6	70-130		%REC	1	11/11/2015 5:31:20 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:40:00 AM

Lab ID: 1511373-002

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	ND	0.010		mg/L	10	11/30/2015 7:02:16 PM	C30537
Lead	0.0053	0.0050		mg/L	10	11/30/2015 7:02:16 PM	C30537
Selenium	0.014	0.0010		mg/L	1	11/25/2015 8:19:19 PM	F30497
Uranium	0.21	0.0050	*	mg/L	10	11/30/2015 7:02:16 PM	C30537
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.56	0.50		mg/L	5	11/10/2015 4:55:54 PM	R30148
Chloride	91	10		mg/L	20	11/10/2015 5:08:18 PM	R30148
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/10/2015 4:55:54 PM	R30148
Bromide	0.63	0.50		mg/L	5	11/10/2015 4:55:54 PM	R30148
Nitrogen, Nitrate (As N)	0.75	0.50		mg/L	5	11/10/2015 4:55:54 PM	R30148
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/10/2015 4:55:54 PM	R30148
Sulfate	110	2.5		mg/L	5	11/10/2015 4:55:54 PM	R30148
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.053	0.0020		mg/L	1	11/19/2015 4:52:51 PM	B30352
Cadmium	ND	0.0020		mg/L	1	11/19/2015 4:52:51 PM	B30352
Calcium	5.7	1.0		mg/L	1	11/19/2015 4:52:51 PM	B30352
Chromium	0.0062	0.0060		mg/L	1	11/19/2015 4:52:51 PM	B30352
Copper	ND	0.0060		mg/L	1	11/19/2015 4:52:51 PM	B30352
Iron	0.87	0.020	*	mg/L	1	11/19/2015 4:52:51 PM	B30352
Magnesium	ND	1.0		mg/L	1	11/19/2015 4:52:51 PM	B30352
Manganese	0.081	0.0020	*	mg/L	1	11/19/2015 4:52:51 PM	B30352
Potassium	1.5	1.0		mg/L	1	11/19/2015 4:52:51 PM	B30352
Silver	ND	0.0050		mg/L	1	11/19/2015 4:52:51 PM	B30352
Sodium	400	5.0		mg/L	5	11/24/2015 4:16:05 PM	A30462
Zinc	ND	0.010		mg/L	1	11/19/2015 4:52:51 PM	B30352
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.15	0.0020		mg/L	1	11/17/2015 3:42:02 PM	22296
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:42:02 PM	22296
Chromium	0.012	0.0060		mg/L	1	11/17/2015 3:42:02 PM	22296
Copper	0.0080	0.0060		mg/L	1	11/17/2015 3:42:02 PM	22296
Iron	9.9	0.40	*	mg/L	20	11/18/2015 1:54:48 PM	22296
Manganese	0.29	0.0020	*	mg/L	1	11/17/2015 3:42:02 PM	22296
Silver	ND	0.0050		mg/L	1	11/18/2015 1:41:57 PM	22296
Zinc	0.037	0.010		mg/L	1	11/17/2015 3:42:02 PM	22296
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0078	0.0010		mg/L	1	11/20/2015 8:41:53 PM	22296
Lead	0.013	0.00050		mg/L	1	11/20/2015 8:41:53 PM	22296

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:40:00 AM

Lab ID: 1511373-002

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.10		mg/L	10	11/24/2015 2:03:15 PM	22296
Uranium	0.20	0.0050	*	mg/L	10	11/24/2015 2:03:15 PM	22296
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 2:22:24 PM	22361
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/12/2015 10:27:20 AM	22271
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/12/2015 10:27:20 AM	22271
Surr: DNOP	114	72-136		%REC	1	11/12/2015 10:27:20 AM	22271
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/12/2015 10:58:02 AM	A30203
Surr: BFB	77.8	57.8-137		%REC	1	11/12/2015 10:58:02 AM	A30203
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Acenaphthylene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Aniline	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Anthracene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Azobenzene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Benz(a)anthracene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Benzo(a)pyrene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Benzo(b)fluoranthene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Benzo(k)fluoranthene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Benzoic acid	ND	20		µg/L	1	11/13/2015 1:53:55 PM	22327
Benzyl alcohol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Butyl benzyl phthalate	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Carbazole	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
4-Chloroaniline	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2-Chloronaphthalene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2-Chlorophenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Chrysene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:40:00 AM

Lab ID: 1511373-002

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Di-n-octyl phthalate	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Dibenzofuran	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
1,2-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
1,3-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
1,4-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Diethyl phthalate	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Dimethyl phthalate	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2,4-Dichlorophenol	ND	20		µg/L	1	11/13/2015 1:53:55 PM	22327
2,4-Dimethylphenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/13/2015 1:53:55 PM	22327
2,4-Dinitrophenol	ND	20		µg/L	1	11/13/2015 1:53:55 PM	22327
2,4-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2,6-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Fluoranthene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Fluorene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Hexachlorobenzene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Hexachlorobutadiene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Hexachloroethane	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Isophorone	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
1-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2-Methylphenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
3+4-Methylphenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
N-Nitrosodimethylamine	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Naphthalene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2-Nitroaniline	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
3-Nitroaniline	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
4-Nitroaniline	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Nitrobenzene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2-Nitrophenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
4-Nitrophenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Pentachlorophenol	ND	20		µg/L	1	11/13/2015 1:53:55 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:40:00 AM

Lab ID: 1511373-002

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Phenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Pyrene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Pyridine	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/13/2015 1:53:55 PM	22327
Surr: 2-Fluorophenol	51.5	4.63-113		%REC	1	11/13/2015 1:53:55 PM	22327
Surr: Phenol-d5	45.7	4.13-124		%REC	1	11/13/2015 1:53:55 PM	22327
Surr: 2,4,6-Tribromophenol	72.4	5.14-132		%REC	1	11/13/2015 1:53:55 PM	22327
Surr: Nitrobenzene-d5	64.8	9.13-140		%REC	1	11/13/2015 1:53:55 PM	22327
Surr: 2-Fluorobiphenyl	62.9	10.8-132		%REC	1	11/13/2015 1:53:55 PM	22327
Surr: 4-Terphenyl-d14	45.4	12.9-107		%REC	1	11/13/2015 1:53:55 PM	22327
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Toluene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Ethylbenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Naphthalene	ND	2.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
2-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Acetone	ND	10		µg/L	1	11/11/2015 6:01:39 PM	R30176
Bromobenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Bromoform	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Bromomethane	ND	3.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
2-Butanone	ND	10		µg/L	1	11/11/2015 6:01:39 PM	R30176
Carbon disulfide	ND	10		µg/L	1	11/11/2015 6:01:39 PM	R30176
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Chlorobenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Chloroethane	ND	2.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Chloroform	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Chloromethane	ND	3.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:40:00 AM

Lab ID: 1511373-002

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Dibromomethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
2-Hexanone	ND	10		µg/L	1	11/11/2015 6:01:39 PM	R30176
Isopropylbenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
4-Isopropyltoluene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2015 6:01:39 PM	R30176
Methylene Chloride	ND	3.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
n-Butylbenzene	ND	3.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
n-Propylbenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
sec-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Styrene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2015 6:01:39 PM	R30176
Vinyl chloride	ND	1.0		µg/L	1	11/11/2015 6:01:39 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:40:00 AM

Lab ID: 1511373-002

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Xylenes, Total	ND	1.5		µg/L	1	11/11/2015 6:01:39 PM	R30176
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	1	11/11/2015 6:01:39 PM	R30176
Surr: 4-Bromofluorobenzene	88.8	70-130		%REC	1	11/11/2015 6:01:39 PM	R30176
Surr: Dibromofluoromethane	86.5	70-130		%REC	1	11/11/2015 6:01:39 PM	R30176
Surr: Toluene-d8	97.5	70-130		%REC	1	11/11/2015 6:01:39 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 8:45:00 AM

Lab ID: 1511373-003

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0033	0.0010		mg/L	1	11/25/2015 8:22:22 PM	F30497
Lead	0.0083	0.0025		mg/L	5	11/30/2015 7:05:19 PM	C30537
Selenium	ND	0.0050		mg/L	5	11/30/2015 7:05:19 PM	C30537
Uranium	0.0048	0.0025		mg/L	5	11/30/2015 7:05:19 PM	C30537
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.41	0.10		mg/L	1	11/10/2015 5:20:43 PM	R30148
Chloride	100	10		mg/L	20	11/10/2015 5:33:08 PM	R30148
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/10/2015 5:20:43 PM	R30148
Bromide	0.84	0.10		mg/L	1	11/10/2015 5:20:43 PM	R30148
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/10/2015 5:20:43 PM	R30148
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/10/2015 5:20:43 PM	R30148
Sulfate	17	0.50		mg/L	1	11/10/2015 5:20:43 PM	R30148
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.92	0.0020		mg/L	1	11/19/2015 4:54:53 PM	B30352
Cadmium	ND	0.0020		mg/L	1	11/19/2015 4:54:53 PM	B30352
Calcium	120	10		mg/L	10	11/24/2015 4:17:51 PM	A30462
Chromium	ND	0.0060		mg/L	1	11/19/2015 4:54:53 PM	B30352
Copper	ND	0.0060		mg/L	1	11/19/2015 4:54:53 PM	B30352
Iron	5.9	0.20	*	mg/L	10	11/24/2015 4:17:51 PM	A30462
Magnesium	23	1.0		mg/L	1	11/19/2015 4:54:53 PM	B30352
Manganese	2.4	0.020	*	mg/L	10	11/24/2015 4:17:51 PM	A30462
Potassium	1.1	1.0		mg/L	1	11/19/2015 4:54:53 PM	B30352
Silver	ND	0.0050		mg/L	1	11/19/2015 4:54:53 PM	B30352
Sodium	230	10		mg/L	10	11/24/2015 4:17:51 PM	A30462
Zinc	ND	0.010		mg/L	1	11/19/2015 4:54:53 PM	B30352
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.4	0.010		mg/L	5	11/18/2015 1:56:35 PM	22296
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:47:24 PM	22296
Chromium	0.0099	0.0060		mg/L	1	11/17/2015 3:47:24 PM	22296
Copper	0.019	0.0060		mg/L	1	11/17/2015 3:47:24 PM	22296
Iron	18	0.40	*	mg/L	20	11/18/2015 1:58:22 PM	22296
Manganese	3.1	0.010	*	mg/L	5	11/18/2015 1:56:35 PM	22296
Silver	ND	0.0050		mg/L	1	11/17/2015 3:47:24 PM	22296
Zinc	0.032	0.010		mg/L	1	11/17/2015 3:47:24 PM	22296
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0036	0.0010		mg/L	1	11/20/2015 8:44:54 PM	22296
Lead	0.029	0.0025	*	mg/L	5	11/24/2015 2:06:16 PM	22296

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 8:45:00 AM

Lab ID: 1511373-003

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.010		mg/L	10	12/1/2015 5:22:46 PM	22296
Uranium	0.0078	0.00050		mg/L	1	11/20/2015 8:44:54 PM	22296
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 2:24:29 PM	22361
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	1.6	1.0		mg/L	1	11/12/2015 10:47:57 AM	22271
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/12/2015 10:47:57 AM	22271
Surr: DNOP	102	72-136		%REC	1	11/12/2015 10:47:57 AM	22271
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	14	1.0		mg/L	20	11/12/2015 11:22:34 AM	A30203
Surr: BFB	87.5	57.8-137		%REC	20	11/12/2015 11:22:34 AM	A30203
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Acenaphthylene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Aniline	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Anthracene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Azobenzene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Benz(a)anthracene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Benzo(a)pyrene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Benzo(b)fluoranthene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Benzo(k)fluoranthene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Benzoic acid	ND	20		µg/L	1	11/13/2015 2:23:47 PM	22327
Benzyl alcohol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Butyl benzyl phthalate	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Carbazole	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
4-Chloroaniline	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2-Chloronaphthalene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2-Chlorophenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Chrysene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 8:45:00 AM

Lab ID: 1511373-003

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Di-n-octyl phthalate	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Dibenzofuran	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
1,2-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
1,3-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
1,4-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Diethyl phthalate	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Dimethyl phthalate	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2,4-Dichlorophenol	ND	20		µg/L	1	11/13/2015 2:23:47 PM	22327
2,4-Dimethylphenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/13/2015 2:23:47 PM	22327
2,4-Dinitrophenol	ND	20		µg/L	1	11/13/2015 2:23:47 PM	22327
2,4-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2,6-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Fluoranthene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Fluorene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Hexachlorobenzene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Hexachlorobutadiene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Hexachloroethane	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Isophorone	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
1-Methylnaphthalene	40	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2-Methylphenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
3+4-Methylphenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
N-Nitrosodimethylamine	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Naphthalene	11	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2-Nitroaniline	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
3-Nitroaniline	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
4-Nitroaniline	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Nitrobenzene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2-Nitrophenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
4-Nitrophenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Pentachlorophenol	ND	20		µg/L	1	11/13/2015 2:23:47 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 8:45:00 AM

Lab ID: 1511373-003

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Phenol	10	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Pyrene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Pyridine	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/13/2015 2:23:47 PM	22327
Surr: 2-Fluorophenol	48.5	4.63-113		%REC	1	11/13/2015 2:23:47 PM	22327
Surr: Phenol-d5	50.0	4.13-124		%REC	1	11/13/2015 2:23:47 PM	22327
Surr: 2,4,6-Tribromophenol	79.4	5.14-132		%REC	1	11/13/2015 2:23:47 PM	22327
Surr: Nitrobenzene-d5	62.7	9.13-140		%REC	1	11/13/2015 2:23:47 PM	22327
Surr: 2-Fluorobiphenyl	69.9	10.8-132		%REC	1	11/13/2015 2:23:47 PM	22327
Surr: 4-Terphenyl-d14	48.7	12.9-107		%REC	1	11/13/2015 2:23:47 PM	22327
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	2700	200		µg/L	200	11/11/2015 7:32:57 PM	R30176
Toluene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Ethylbenzene	350	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Methyl tert-butyl ether (MTBE)	5500	200		µg/L	200	11/11/2015 7:32:57 PM	R30176
1,2,4-Trimethylbenzene	29	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,3,5-Trimethylbenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Naphthalene	ND	40		µg/L	20	11/11/2015 8:03:27 PM	R30176
1-Methylnaphthalene	ND	80		µg/L	20	11/11/2015 8:03:27 PM	R30176
2-Methylnaphthalene	ND	80		µg/L	20	11/11/2015 8:03:27 PM	R30176
Acetone	ND	200		µg/L	20	11/11/2015 8:03:27 PM	R30176
Bromobenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Bromodichloromethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Bromoform	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Bromomethane	ND	60		µg/L	20	11/11/2015 8:03:27 PM	R30176
2-Butanone	ND	200		µg/L	20	11/11/2015 8:03:27 PM	R30176
Carbon disulfide	ND	200		µg/L	20	11/11/2015 8:03:27 PM	R30176
Carbon Tetrachloride	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Chlorobenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Chloroethane	ND	40		µg/L	20	11/11/2015 8:03:27 PM	R30176
Chloroform	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Chloromethane	ND	60		µg/L	20	11/11/2015 8:03:27 PM	R30176
2-Chlorotoluene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
4-Chlorotoluene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 8:45:00 AM

Lab ID: 1511373-003

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
cis-1,2-DCE	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
cis-1,3-Dichloropropene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	11/11/2015 8:03:27 PM	R30176
Dibromochloromethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Dibromomethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2-Dichlorobenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,3-Dichlorobenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,4-Dichlorobenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Dichlorodifluoromethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,1-Dichloroethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,1-Dichloroethene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2-Dichloropropane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,3-Dichloropropane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
2,2-Dichloropropane	ND	40		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,1-Dichloropropene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Hexachlorobutadiene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
2-Hexanone	ND	200		µg/L	20	11/11/2015 8:03:27 PM	R30176
Isopropylbenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
4-Isopropyltoluene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
4-Methyl-2-pentanone	ND	200		µg/L	20	11/11/2015 8:03:27 PM	R30176
Methylene Chloride	ND	60		µg/L	20	11/11/2015 8:03:27 PM	R30176
n-Butylbenzene	ND	60		µg/L	20	11/11/2015 8:03:27 PM	R30176
n-Propylbenzene	32	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
sec-Butylbenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Styrene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
tert-Butylbenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	11/11/2015 8:03:27 PM	R30176
Tetrachloroethene (PCE)	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
trans-1,2-DCE	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
trans-1,3-Dichloropropene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2,3-Trichlorobenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2,4-Trichlorobenzene	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,1,1-Trichloroethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,1,2-Trichloroethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Trichloroethene (TCE)	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
Trichlorofluoromethane	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176
1,2,3-Trichloropropane	ND	40		µg/L	20	11/11/2015 8:03:27 PM	R30176
Vinyl chloride	ND	20		µg/L	20	11/11/2015 8:03:27 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 8:45:00 AM

Lab ID: 1511373-003

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	ND	30		µg/L	20	11/11/2015 8:03:27 PM	R30176
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	20	11/11/2015 8:03:27 PM	R30176
Surr: 4-Bromofluorobenzene	83.4	70-130		%REC	20	11/11/2015 8:03:27 PM	R30176
Surr: Dibromofluoromethane	89.4	70-130		%REC	20	11/11/2015 8:03:27 PM	R30176
Surr: Toluene-d8	100	70-130		%REC	20	11/11/2015 8:03:27 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:15:00 AM

Lab ID: 1511373-004

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/30/2015 7:08:22 PM	C30537
Lead	0.00059	0.00050		mg/L	1	11/25/2015 8:31:36 PM	F30497
Selenium	ND	0.0050		mg/L	5	11/30/2015 7:08:22 PM	C30537
Uranium	0.040	0.0025	*	mg/L	5	11/30/2015 7:08:22 PM	C30537
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.34	0.10		mg/L	1	11/10/2015 6:10:22 PM	R30148
Chloride	99	10		mg/L	20	11/10/2015 6:22:47 PM	R30148
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/10/2015 6:10:22 PM	R30148
Bromide	0.66	0.10		mg/L	1	11/10/2015 6:10:22 PM	R30148
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/10/2015 6:10:22 PM	R30148
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/10/2015 6:10:22 PM	R30148
Sulfate	290	10		mg/L	20	11/10/2015 6:22:47 PM	R30148
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.062	0.0020		mg/L	1	11/19/2015 4:56:30 PM	B30352
Cadmium	ND	0.0020		mg/L	1	11/19/2015 4:56:30 PM	B30352
Calcium	82	1.0		mg/L	1	11/19/2015 4:56:30 PM	B30352
Chromium	ND	0.0060		mg/L	1	11/19/2015 4:56:30 PM	B30352
Copper	ND	0.0060		mg/L	1	11/19/2015 4:56:30 PM	B30352
Iron	0.071	0.020		mg/L	1	11/19/2015 4:56:30 PM	B30352
Magnesium	18	1.0		mg/L	1	11/19/2015 4:56:30 PM	B30352
Manganese	0.24	0.0020	*	mg/L	1	11/19/2015 4:56:30 PM	B30352
Potassium	1.2	1.0		mg/L	1	11/19/2015 4:56:30 PM	B30352
Silver	ND	0.0050		mg/L	1	11/19/2015 4:56:30 PM	B30352
Sodium	270	5.0		mg/L	5	11/24/2015 4:29:00 PM	A30462
Zinc	ND	0.010		mg/L	1	11/19/2015 4:56:30 PM	B30352
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.3	0.010		mg/L	5	11/18/2015 2:00:19 PM	22296
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:54:37 PM	22296
Chromium	0.015	0.0060		mg/L	1	11/17/2015 3:54:37 PM	22296
Copper	0.022	0.0060		mg/L	1	11/17/2015 3:54:37 PM	22296
Iron	18	0.40	*	mg/L	20	11/18/2015 2:02:09 PM	22296
Manganese	2.7	0.010	*	mg/L	5	11/18/2015 2:00:19 PM	22296
Silver	ND	0.0050		mg/L	1	11/17/2015 3:54:37 PM	22296
Zinc	0.065	0.010		mg/L	1	11/17/2015 3:54:37 PM	22296
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0036	0.0010		mg/L	1	11/20/2015 8:47:54 PM	22296
Lead	0.036	0.0025	*	mg/L	5	11/24/2015 2:09:17 PM	22296

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:15:00 AM

Lab ID: 1511373-004

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0050		mg/L	5	11/24/2015 2:09:17 PM	22296
Uranium	0.045	0.0025	*	mg/L	5	11/24/2015 2:09:17 PM	22296
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 2:26:34 PM	22361
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/12/2015 10:26:40 AM	22271
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/12/2015 10:26:40 AM	22271
Surr: DNOP	100	72-136		%REC	1	11/12/2015 10:26:40 AM	22271
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.53	0.050		mg/L	1	11/12/2015 12:36:11 PM	A30203
Surr: BFB	76.4	57.8-137		%REC	1	11/12/2015 12:36:11 PM	A30203
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Acenaphthylene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Aniline	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Anthracene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Azobenzene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Benz(a)anthracene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Benzo(a)pyrene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Benzo(b)fluoranthene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Benzo(k)fluoranthene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Benzoic acid	ND	20		µg/L	1	11/13/2015 2:53:42 PM	22327
Benzyl alcohol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Butyl benzyl phthalate	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Carbazole	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
4-Chloroaniline	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2-Chloronaphthalene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2-Chlorophenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Chrysene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:15:00 AM

Lab ID: 1511373-004

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Di-n-octyl phthalate	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Dibenzofuran	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
1,2-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
1,3-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
1,4-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Diethyl phthalate	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Dimethyl phthalate	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2,4-Dichlorophenol	ND	20		µg/L	1	11/13/2015 2:53:42 PM	22327
2,4-Dimethylphenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/13/2015 2:53:42 PM	22327
2,4-Dinitrophenol	ND	20		µg/L	1	11/13/2015 2:53:42 PM	22327
2,4-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2,6-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Fluoranthene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Fluorene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Hexachlorobenzene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Hexachlorobutadiene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Hexachloroethane	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Isophorone	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
1-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2-Methylphenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
3+4-Methylphenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
N-Nitrosodimethylamine	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Naphthalene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2-Nitroaniline	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
3-Nitroaniline	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
4-Nitroaniline	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Nitrobenzene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2-Nitrophenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
4-Nitrophenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Pentachlorophenol	ND	20		µg/L	1	11/13/2015 2:53:42 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:15:00 AM

Lab ID: 1511373-004

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Phenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Pyrene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Pyridine	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/13/2015 2:53:42 PM	22327
Surr: 2-Fluorophenol	63.3	4.63-113		%REC	1	11/13/2015 2:53:42 PM	22327
Surr: Phenol-d5	61.7	4.13-124		%REC	1	11/13/2015 2:53:42 PM	22327
Surr: 2,4,6-Tribromophenol	86.6	5.14-132		%REC	1	11/13/2015 2:53:42 PM	22327
Surr: Nitrobenzene-d5	81.1	9.13-140		%REC	1	11/13/2015 2:53:42 PM	22327
Surr: 2-Fluorobiphenyl	88.7	10.8-132		%REC	1	11/13/2015 2:53:42 PM	22327
Surr: 4-Terphenyl-d14	78.6	12.9-107		%REC	1	11/13/2015 2:53:42 PM	22327
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Toluene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Ethylbenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Methyl tert-butyl ether (MTBE)	580	10		µg/L	10	11/11/2015 8:33:52 PM	R30176
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Naphthalene	ND	2.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
2-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Acetone	ND	10		µg/L	1	11/11/2015 9:04:21 PM	R30176
Bromobenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Bromoform	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Bromomethane	ND	3.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
2-Butanone	ND	10		µg/L	1	11/11/2015 9:04:21 PM	R30176
Carbon disulfide	ND	10		µg/L	1	11/11/2015 9:04:21 PM	R30176
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Chlorobenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Chloroethane	ND	2.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Chloroform	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Chloromethane	ND	3.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:15:00 AM

Lab ID: 1511373-004

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Dibromomethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
2-Hexanone	ND	10		µg/L	1	11/11/2015 9:04:21 PM	R30176
Isopropylbenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
4-Isopropyltoluene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2015 9:04:21 PM	R30176
Methylene Chloride	ND	3.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
n-Butylbenzene	ND	3.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
n-Propylbenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
sec-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Styrene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2015 9:04:21 PM	R30176
Vinyl chloride	ND	1.0		µg/L	1	11/11/2015 9:04:21 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:15:00 AM

Lab ID: 1511373-004

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	ND	1.5		µg/L	1	11/11/2015 9:04:21 PM	R30176
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	11/11/2015 9:04:21 PM	R30176
Surr: 4-Bromofluorobenzene	85.6	70-130		%REC	1	11/11/2015 9:04:21 PM	R30176
Surr: Dibromofluoromethane	91.3	70-130		%REC	1	11/11/2015 9:04:21 PM	R30176
Surr: Toluene-d8	95.5	70-130		%REC	1	11/11/2015 9:04:21 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:43:00 AM

Lab ID: 1511373-005

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.015	0.0010	*	mg/L	1	11/25/2015 8:34:40 PM	F30497
Lead	ND	0.0025		mg/L	5	11/30/2015 7:11:26 PM	C30537
Selenium	ND	0.050		mg/L	5	11/30/2015 7:11:26 PM	C30537
Uranium	0.024	0.0025		mg/L	5	11/30/2015 7:11:26 PM	C30537
EPA METHOD 300.0: ANIONS							Analyst: LGT
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/20/2015 10:16:12 PM	R30404
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.71	0.0020		mg/L	1	11/19/2015 4:58:26 PM	B30352
Cadmium	ND	0.0020		mg/L	1	11/19/2015 4:58:26 PM	B30352
Calcium	70	1.0		mg/L	1	11/19/2015 4:58:26 PM	B30352
Chromium	ND	0.0060		mg/L	1	11/19/2015 4:58:26 PM	B30352
Copper	ND	0.0060		mg/L	1	11/19/2015 4:58:26 PM	B30352
Iron	0.99	0.020	*	mg/L	1	11/19/2015 4:58:26 PM	B30352
Magnesium	12	1.0		mg/L	1	11/19/2015 4:58:26 PM	B30352
Manganese	1.4	0.010	*	mg/L	5	11/24/2015 4:30:57 PM	A30462
Potassium	1.6	1.0		mg/L	1	11/19/2015 4:58:26 PM	B30352
Silver	ND	0.0050		mg/L	1	11/19/2015 4:58:26 PM	B30352
Sodium	450	5.0		mg/L	5	11/24/2015 4:30:57 PM	A30462
Zinc	ND	0.010		mg/L	1	11/19/2015 4:58:26 PM	B30352
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	71	1.0		mg/L	1	11/12/2015 10:05:13 AM	22271
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/12/2015 10:05:13 AM	22271
Surr: DNOP	105	72-136		%REC	1	11/12/2015 10:05:13 AM	22271
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	34	2.5		mg/L	50	11/12/2015 1:01:14 PM	A30203
Surr: BFB	99.7	57.8-137		%REC	50	11/12/2015 1:01:14 PM	A30203
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Acenaphthylene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Aniline	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Anthracene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Azobenzene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Benz(a)anthracene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Benzo(a)pyrene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Benzo(b)fluoranthene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Benzo(k)fluoranthene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:43:00 AM

Lab ID: 1511373-005

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Benzoic acid	ND	20		µg/L	1	11/13/2015 3:23:31 PM	22327
Benzyl alcohol	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Butyl benzyl phthalate	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Carbazole	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
4-Chloroaniline	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2-Chloronaphthalene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2-Chlorophenol	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Chrysene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Di-n-butyl phthalate	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Di-n-octyl phthalate	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Dibenzofuran	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
1,2-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
1,3-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
1,4-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Diethyl phthalate	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Dimethyl phthalate	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2,4-Dichlorophenol	ND	20		µg/L	1	11/13/2015 3:23:31 PM	22327
2,4-Dimethylphenol	65	10		µg/L	1	11/13/2015 3:23:31 PM	22327
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/13/2015 3:23:31 PM	22327
2,4-Dinitrophenol	ND	20		µg/L	1	11/13/2015 3:23:31 PM	22327
2,4-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2,6-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Fluoranthene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Fluorene	13	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Hexachlorobenzene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Hexachlorobutadiene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Hexachloroethane	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Isophorone	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:43:00 AM

Lab ID: 1511373-005

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
1-Methylnaphthalene	170	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2-Methylnaphthalene	210	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2-Methylphenol	60	10		µg/L	1	11/13/2015 3:23:31 PM	22327
3+4-Methylphenol	54	10		µg/L	1	11/13/2015 3:23:31 PM	22327
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
N-Nitrosodimethylamine	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Naphthalene	230	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2-Nitroaniline	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
3-Nitroaniline	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
4-Nitroaniline	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Nitrobenzene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2-Nitrophenol	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
4-Nitrophenol	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Pentachlorophenol	ND	20		µg/L	1	11/13/2015 3:23:31 PM	22327
Phenanthrene	22	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Phenol	36	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Pyrene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Pyridine	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/13/2015 3:23:31 PM	22327
Surr: 2-Fluorophenol	40.0	4.63-113		%REC	1	11/13/2015 3:23:31 PM	22327
Surr: Phenol-d5	35.8	4.13-124		%REC	1	11/13/2015 3:23:31 PM	22327
Surr: 2,4,6-Tribromophenol	82.4	5.14-132		%REC	1	11/13/2015 3:23:31 PM	22327
Surr: Nitrobenzene-d5	73.2	9.13-140		%REC	1	11/13/2015 3:23:31 PM	22327
Surr: 2-Fluorobiphenyl	79.6	10.8-132		%REC	1	11/13/2015 3:23:31 PM	22327
Surr: 4-Terphenyl-d14	53.1	12.9-107		%REC	1	11/13/2015 3:23:31 PM	22327
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	2600	200		µg/L	200	11/11/2015 9:34:48 PM	R30176
Toluene	3000	200		µg/L	200	11/11/2015 9:34:48 PM	R30176
Ethylbenzene	570	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Methyl tert-butyl ether (MTBE)	1400	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2,4-Trimethylbenzene	1400	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,3,5-Trimethylbenzene	380	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Naphthalene	390	40		µg/L	20	11/11/2015 10:05:15 PM	R30176
1-Methylnaphthalene	140	80		µg/L	20	11/11/2015 10:05:15 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:43:00 AM

Lab ID: 1511373-005

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: BCN		
2-Methylnaphthalene	210	80		µg/L	20	11/11/2015 10:05:15 PM	R30176
Acetone	ND	200		µg/L	20	11/11/2015 10:05:15 PM	R30176
Bromobenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Bromodichloromethane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Bromoform	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Bromomethane	ND	60		µg/L	20	11/11/2015 10:05:15 PM	R30176
2-Butanone	ND	200		µg/L	20	11/11/2015 10:05:15 PM	R30176
Carbon disulfide	ND	200		µg/L	20	11/11/2015 10:05:15 PM	R30176
Carbon Tetrachloride	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Chlorobenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Chloroethane	ND	40		µg/L	20	11/11/2015 10:05:15 PM	R30176
Chloroform	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Chloromethane	ND	60		µg/L	20	11/11/2015 10:05:15 PM	R30176
2-Chlorotoluene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
4-Chlorotoluene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
cis-1,2-DCE	49	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
cis-1,3-Dichloropropene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	11/11/2015 10:05:15 PM	R30176
Dibromochloromethane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Dibromomethane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2-Dichlorobenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,3-Dichlorobenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,4-Dichlorobenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Dichlorodifluoromethane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,1-Dichloroethane	110	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,1-Dichloroethene	49	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2-Dichloropropane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,3-Dichloropropane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
2,2-Dichloropropane	ND	40		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,1-Dichloropropene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Hexachlorobutadiene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
2-Hexanone	ND	200		µg/L	20	11/11/2015 10:05:15 PM	R30176
Isopropylbenzene	48	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
4-Isopropyltoluene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
4-Methyl-2-pentanone	ND	200		µg/L	20	11/11/2015 10:05:15 PM	R30176
Methylene Chloride	ND	60		µg/L	20	11/11/2015 10:05:15 PM	R30176
n-Butylbenzene	ND	60		µg/L	20	11/11/2015 10:05:15 PM	R30176
n-Propylbenzene	92	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
sec-Butylbenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 9:43:00 AM

Lab ID: 1511373-005

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Styrene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
tert-Butylbenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	11/11/2015 10:05:15 PM	R30176
Tetrachloroethene (PCE)	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
trans-1,2-DCE	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
trans-1,3-Dichloropropene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2,3-Trichlorobenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2,4-Trichlorobenzene	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,1,1-Trichloroethane	27	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,1,2-Trichloroethane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Trichloroethene (TCE)	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Trichlorofluoromethane	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
1,2,3-Trichloropropane	ND	40		µg/L	20	11/11/2015 10:05:15 PM	R30176
Vinyl chloride	ND	20		µg/L	20	11/11/2015 10:05:15 PM	R30176
Xylenes, Total	7800	300		µg/L	200	11/11/2015 9:34:48 PM	R30176
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%REC	20	11/11/2015 10:05:15 PM	R30176
Surr: 4-Bromofluorobenzene	88.8	70-130		%REC	20	11/11/2015 10:05:15 PM	R30176
Surr: Dibromofluoromethane	89.6	70-130		%REC	20	11/11/2015 10:05:15 PM	R30176
Surr: Toluene-d8	109	70-130		%REC	20	11/11/2015 10:05:15 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 10:30:00 AM

Lab ID: 1511373-006

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/30/2015 7:14:29 PM	C30537
Lead	0.0010	0.00050		mg/L	1	11/25/2015 8:37:43 PM	F30497
Selenium	ND	0.050		mg/L	5	11/30/2015 7:14:29 PM	C30537
Uranium	0.019	0.00050		mg/L	1	11/25/2015 8:37:43 PM	F30497
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.91	0.10		mg/L	1	11/10/2015 6:35:12 PM	R30148
Chloride	210	10		mg/L	20	11/10/2015 6:47:37 PM	R30148
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/10/2015 6:35:12 PM	R30148
Bromide	1.1	0.10		mg/L	1	11/10/2015 6:35:12 PM	R30148
Nitrogen, Nitrate (As N)	2.5	0.10		mg/L	1	11/10/2015 6:35:12 PM	R30148
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/10/2015 6:35:12 PM	R30148
Sulfate	400	10		mg/L	20	11/10/2015 6:47:37 PM	R30148
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	0.066	0.0020		mg/L	1	11/19/2015 5:00:29 PM	B30352
Cadmium	ND	0.0020		mg/L	1	11/19/2015 5:00:29 PM	B30352
Calcium	170	5.0		mg/L	5	11/24/2015 4:32:56 PM	A30462
Chromium	ND	0.0060		mg/L	1	11/19/2015 5:00:29 PM	B30352
Copper	ND	0.0060		mg/L	1	11/19/2015 5:00:29 PM	B30352
Iron	0.22	0.020		mg/L	1	11/19/2015 5:00:29 PM	B30352
Magnesium	29	1.0		mg/L	1	11/19/2015 5:00:29 PM	B30352
Manganese	3.4	0.010	*	mg/L	5	11/24/2015 4:32:56 PM	A30462
Potassium	1.5	1.0		mg/L	1	11/19/2015 5:00:29 PM	B30352
Silver	ND	0.0050		mg/L	1	11/19/2015 5:00:29 PM	B30352
Sodium	230	5.0		mg/L	5	11/24/2015 4:32:56 PM	A30462
Zinc	ND	0.010		mg/L	1	11/19/2015 5:00:29 PM	B30352
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.93	0.0020		mg/L	1	11/17/2015 3:56:25 PM	22296
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:56:25 PM	22296
Chromium	0.0096	0.0060		mg/L	1	11/17/2015 3:56:25 PM	22296
Copper	0.0093	0.0060		mg/L	1	11/17/2015 3:56:25 PM	22296
Iron	11	0.40	*	mg/L	20	11/18/2015 2:05:55 PM	22296
Manganese	4.2	0.010	*	mg/L	5	11/18/2015 2:04:08 PM	22296
Silver	ND	0.0050		mg/L	1	11/17/2015 3:56:25 PM	22296
Zinc	0.035	0.010		mg/L	1	11/17/2015 3:56:25 PM	22296
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0050	0.0010		mg/L	1	11/20/2015 8:50:55 PM	22296
Lead	0.020	0.00050	*	mg/L	1	11/20/2015 8:50:55 PM	22296

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 10:30:00 AM

Lab ID: 1511373-006

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.010		mg/L	10	11/24/2015 2:18:22 PM	22296
Uranium	0.020	0.00050		mg/L	1	11/20/2015 8:50:55 PM	22296
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/17/2015 2:28:40 PM	22361
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/12/2015 9:43:49 AM	22271
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/12/2015 9:43:49 AM	22271
Surr: DNOP	104	72-136		%REC	1	11/12/2015 9:43:49 AM	22271
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.12	0.050		mg/L	1	11/12/2015 1:25:57 PM	A30203
Surr: BFB	81.8	57.8-137		%REC	1	11/12/2015 1:25:57 PM	A30203
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Acenaphthylene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Aniline	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Anthracene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Azobenzene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Benz(a)anthracene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Benzo(a)pyrene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Benzo(b)fluoranthene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Benzo(k)fluoranthene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Benzoic acid	ND	20		µg/L	1	11/13/2015 3:53:32 PM	22327
Benzyl alcohol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Butyl benzyl phthalate	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Carbazole	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
4-Chloroaniline	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2-Chloronaphthalene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2-Chlorophenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Chrysene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 10:30:00 AM

Lab ID: 1511373-006

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Di-n-octyl phthalate	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Dibenzofuran	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
1,2-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
1,3-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
1,4-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Diethyl phthalate	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Dimethyl phthalate	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2,4-Dichlorophenol	ND	20		µg/L	1	11/13/2015 3:53:32 PM	22327
2,4-Dimethylphenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/13/2015 3:53:32 PM	22327
2,4-Dinitrophenol	ND	20		µg/L	1	11/13/2015 3:53:32 PM	22327
2,4-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2,6-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Fluoranthene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Fluorene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Hexachlorobenzene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Hexachlorobutadiene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Hexachloroethane	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Isophorone	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
1-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2-Methylphenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
3+4-Methylphenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
N-Nitrosodimethylamine	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Naphthalene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2-Nitroaniline	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
3-Nitroaniline	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
4-Nitroaniline	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Nitrobenzene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2-Nitrophenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
4-Nitrophenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Pentachlorophenol	ND	20		µg/L	1	11/13/2015 3:53:32 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 10:30:00 AM

Lab ID: 1511373-006

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Phenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Pyrene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Pyridine	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/13/2015 3:53:32 PM	22327
Surr: 2-Fluorophenol	58.2	4.63-113		%REC	1	11/13/2015 3:53:32 PM	22327
Surr: Phenol-d5	64.6	4.13-124		%REC	1	11/13/2015 3:53:32 PM	22327
Surr: 2,4,6-Tribromophenol	83.3	5.14-132		%REC	1	11/13/2015 3:53:32 PM	22327
Surr: Nitrobenzene-d5	94.2	9.13-140		%REC	1	11/13/2015 3:53:32 PM	22327
Surr: 2-Fluorobiphenyl	92.5	10.8-132		%REC	1	11/13/2015 3:53:32 PM	22327
Surr: 4-Terphenyl-d14	56.4	12.9-107		%REC	1	11/13/2015 3:53:32 PM	22327
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	1.3	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Toluene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Ethylbenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Methyl tert-butyl ether (MTBE)	4.3	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Naphthalene	ND	2.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
2-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Acetone	ND	10		µg/L	1	11/11/2015 10:35:39 PM	R30176
Bromobenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Bromoform	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Bromomethane	ND	3.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
2-Butanone	ND	10		µg/L	1	11/11/2015 10:35:39 PM	R30176
Carbon disulfide	ND	10		µg/L	1	11/11/2015 10:35:39 PM	R30176
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Chlorobenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Chloroethane	ND	2.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Chloroform	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Chloromethane	ND	3.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 10:30:00 AM

Lab ID: 1511373-006

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Dibromomethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
2-Hexanone	ND	10		µg/L	1	11/11/2015 10:35:39 PM	R30176
Isopropylbenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
4-Isopropyltoluene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2015 10:35:39 PM	R30176
Methylene Chloride	ND	3.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
n-Butylbenzene	ND	3.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
n-Propylbenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
sec-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Styrene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2015 10:35:39 PM	R30176
Vinyl chloride	ND	1.0		µg/L	1	11/11/2015 10:35:39 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 10:30:00 AM

Lab ID: 1511373-006

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	ND	1.5		µg/L	1	11/11/2015 10:35:39 PM	R30176
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	11/11/2015 10:35:39 PM	R30176
Surr: 4-Bromofluorobenzene	87.6	70-130		%REC	1	11/11/2015 10:35:39 PM	R30176
Surr: Dibromofluoromethane	88.3	70-130		%REC	1	11/11/2015 10:35:39 PM	R30176
Surr: Toluene-d8	102	70-130		%REC	1	11/11/2015 10:35:39 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 11:00:00 AM

Lab ID: 1511373-007

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: JLF
Arsenic	ND	0.0050		mg/L	5	11/30/2015 7:17:32 PM	C30537
Lead	ND	0.0050		mg/L	10	12/2/2015 5:53:30 PM	D30584
Selenium	ND	0.020		mg/L	20	12/4/2015 6:55:45 PM	B30643
Uranium	ND	0.0050		mg/L	10	12/2/2015 5:53:30 PM	D30584
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	2.0		mg/L	20	11/10/2015 7:12:27 PM	R30148
Chloride	6400	500		mg/L	1E	11/20/2015 10:03:48 PM	R30404
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/10/2015 7:12:27 PM	R30148
Bromide	ND	2.0		mg/L	20	11/10/2015 7:12:27 PM	R30148
Nitrogen, Nitrate (As N)	1.0	0.10		mg/L	1	11/10/2015 7:00:02 PM	R30148
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/10/2015 7:00:02 PM	R30148
Sulfate	ND	0.50		mg/L	1	11/10/2015 7:00:02 PM	R30148
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED
Barium	30	0.10	*	mg/L	50	11/24/2015 4:36:44 PM	A30462
Cadmium	ND	0.0020		mg/L	1	11/19/2015 5:02:27 PM	B30352
Calcium	470	5.0		mg/L	5	11/24/2015 4:34:54 PM	A30462
Chromium	ND	0.0060		mg/L	1	11/19/2015 5:02:27 PM	B30352
Copper	ND	0.0060		mg/L	1	11/19/2015 5:02:27 PM	B30352
Iron	29	1.0	*	mg/L	50	11/24/2015 4:36:44 PM	A30462
Magnesium	130	5.0		mg/L	5	11/24/2015 4:34:54 PM	A30462
Manganese	3.9	0.010	*	mg/L	5	11/24/2015 4:34:54 PM	A30462
Potassium	11	1.0		mg/L	1	11/19/2015 5:02:27 PM	B30352
Silver	ND	0.0050		mg/L	1	11/19/2015 5:02:27 PM	B30352
Sodium	3400	50		mg/L	50	11/24/2015 4:36:44 PM	A30462
Zinc	ND	0.010		mg/L	1	11/19/2015 5:02:27 PM	B30352
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	33	0.20	*	mg/L	100	11/18/2015 7:23:53 PM	22296
Cadmium	ND	0.0020		mg/L	1	11/17/2015 3:58:12 PM	22296
Chromium	0.0088	0.0060		mg/L	1	11/17/2015 3:58:12 PM	22296
Copper	0.037	0.0060		mg/L	1	11/17/2015 3:58:12 PM	22296
Iron	45	2.0	*	mg/L	100	11/18/2015 7:23:53 PM	22296
Manganese	5.2	0.20	*	mg/L	100	11/18/2015 7:23:53 PM	22296
Silver	ND	0.0050		mg/L	1	11/17/2015 3:58:12 PM	22296
Zinc	0.076	0.010		mg/L	1	11/17/2015 3:58:12 PM	22296
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0056	0.0050		mg/L	5	11/24/2015 2:21:23 PM	22296
Lead	0.049	0.0025	*	mg/L	5	11/24/2015 2:21:23 PM	22296

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 11:00:00 AM

Lab ID: 1511373-007

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.050		mg/L	5	11/24/2015 2:21:23 PM	22296
Uranium	0.0038	0.0025		mg/L	5	11/24/2015 2:21:23 PM	22296
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	0.00028	0.00020		mg/L	1	11/17/2015 2:30:45 PM	22361
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM
Diesel Range Organics (DRO)	23	1.0		mg/L	1	11/12/2015 9:22:25 AM	22271
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/12/2015 9:22:25 AM	22271
Surr: DNOP	109	72-136		%REC	1	11/12/2015 9:22:25 AM	22271
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.44	0.050		mg/L	1	11/12/2015 1:50:39 PM	A30203
Surr: BFB	256	57.8-137	S	%REC	1	11/12/2015 1:50:39 PM	A30203
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Acenaphthylene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Aniline	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Anthracene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Azobenzene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Benz(a)anthracene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Benzo(a)pyrene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Benzo(b)fluoranthene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Benzo(k)fluoranthene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Benzoic acid	ND	20		µg/L	1	11/13/2015 4:23:25 PM	22327
Benzyl alcohol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Butyl benzyl phthalate	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Carbazole	21	10		µg/L	1	11/13/2015 4:23:25 PM	22327
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
4-Chloroaniline	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2-Chloronaphthalene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2-Chlorophenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Chrysene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 11:00:00 AM

Lab ID: 1511373-007

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Di-n-octyl phthalate	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Dibenzofuran	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
1,2-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
1,3-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
1,4-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Diethyl phthalate	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Dimethyl phthalate	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2,4-Dichlorophenol	ND	20		µg/L	1	11/13/2015 4:23:25 PM	22327
2,4-Dimethylphenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/13/2015 4:23:25 PM	22327
2,4-Dinitrophenol	ND	20		µg/L	1	11/13/2015 4:23:25 PM	22327
2,4-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2,6-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Fluoranthene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Fluorene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Hexachlorobenzene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Hexachlorobutadiene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Hexachloroethane	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Isophorone	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
1-Methylnaphthalene	89	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2-Methylnaphthalene	32	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2-Methylphenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
3+4-Methylphenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
N-Nitrosodimethylamine	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Naphthalene	62	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2-Nitroaniline	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
3-Nitroaniline	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
4-Nitroaniline	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Nitrobenzene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2-Nitrophenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
4-Nitrophenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Pentachlorophenol	ND	20		µg/L	1	11/13/2015 4:23:25 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 11:00:00 AM

Lab ID: 1511373-007

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenanthrene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Phenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Pyrene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Pyridine	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/13/2015 4:23:25 PM	22327
Surr: 2-Fluorophenol	63.7	4.63-113		%REC	1	11/13/2015 4:23:25 PM	22327
Surr: Phenol-d5	60.4	4.13-124		%REC	1	11/13/2015 4:23:25 PM	22327
Surr: 2,4,6-Tribromophenol	87.2	5.14-132		%REC	1	11/13/2015 4:23:25 PM	22327
Surr: Nitrobenzene-d5	75.9	9.13-140		%REC	1	11/13/2015 4:23:25 PM	22327
Surr: 2-Fluorobiphenyl	81.7	10.8-132		%REC	1	11/13/2015 4:23:25 PM	22327
Surr: 4-Terphenyl-d14	47.1	12.9-107		%REC	1	11/13/2015 4:23:25 PM	22327
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	21	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Toluene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Ethylbenzene	64	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2,4-Trimethylbenzene	85	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Naphthalene	110	20		µg/L	10	11/11/2015 11:06:00 PM	R30176
1-Methylnaphthalene	180	40		µg/L	10	11/11/2015 11:06:00 PM	R30176
2-Methylnaphthalene	63	4.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Acetone	ND	10		µg/L	1	11/11/2015 11:36:24 PM	R30176
Bromobenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Bromoform	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Bromomethane	ND	3.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
2-Butanone	ND	10		µg/L	1	11/11/2015 11:36:24 PM	R30176
Carbon disulfide	ND	10		µg/L	1	11/11/2015 11:36:24 PM	R30176
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Chlorobenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Chloroethane	ND	2.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Chloroform	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Chloromethane	ND	3.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 11:00:00 AM

Lab ID: 1511373-007

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Dibromomethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
2-Hexanone	ND	10		µg/L	1	11/11/2015 11:36:24 PM	R30176
Isopropylbenzene	24	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
4-Isopropyltoluene	8.4	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2015 11:36:24 PM	R30176
Methylene Chloride	ND	3.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
n-Butylbenzene	6.6	3.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
n-Propylbenzene	27	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
sec-Butylbenzene	12	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Styrene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2015 11:36:24 PM	R30176
Vinyl chloride	ND	1.0		µg/L	1	11/11/2015 11:36:24 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 11:00:00 AM

Lab ID: 1511373-007

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: BCN	
Xylenes, Total	ND	1.5		µg/L	1	11/11/2015 11:36:24 PM	R30176
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	11/11/2015 11:36:24 PM	R30176
Surr: 4-Bromofluorobenzene	129	70-130		%REC	1	11/11/2015 11:36:24 PM	R30176
Surr: Dibromofluoromethane	89.5	70-130		%REC	1	11/11/2015 11:36:24 PM	R30176
Surr: Toluene-d8	96.0	70-130		%REC	1	11/11/2015 11:36:24 PM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:00:00 AM

Lab ID: 1511373-008

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Acenaphthylene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Aniline	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Anthracene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Azobenzene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Benz(a)anthracene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Benzo(a)pyrene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Benzo(b)fluoranthene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Benzo(k)fluoranthene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Benzoic acid	ND	20		µg/L	1	11/13/2015 4:53:12 PM	22327
Benzyl alcohol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Butyl benzyl phthalate	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Carbazole	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
4-Chloroaniline	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2-Chloronaphthalene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2-Chlorophenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Chrysene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Di-n-butyl phthalate	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Di-n-octyl phthalate	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Dibenzofuran	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
1,2-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
1,3-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
1,4-Dichlorobenzene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Diethyl phthalate	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Dimethyl phthalate	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2,4-Dichlorophenol	ND	20		µg/L	1	11/13/2015 4:53:12 PM	22327
2,4-Dimethylphenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/13/2015 4:53:12 PM	22327
2,4-Dinitrophenol	ND	20		µg/L	1	11/13/2015 4:53:12 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BLIND DUPLICATE

Project: 2015 4th QTR (MKTF)

Collection Date: 11/9/2015 7:00:00 AM

Lab ID: 1511373-008

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2,6-Dinitrotoluene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Fluoranthene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Fluorene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Hexachlorobenzene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Hexachlorobutadiene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Hexachloroethane	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Isophorone	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
1-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2-Methylnaphthalene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2-Methylphenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
3+4-Methylphenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
N-Nitrosodimethylamine	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Naphthalene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2-Nitroaniline	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
3-Nitroaniline	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
4-Nitroaniline	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Nitrobenzene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2-Nitrophenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
4-Nitrophenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Pentachlorophenol	ND	20		µg/L	1	11/13/2015 4:53:12 PM	22327
Phenanthrene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Phenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Pyrene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Pyridine	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/13/2015 4:53:12 PM	22327
Surr: 2-Fluorophenol	68.0	4.63-113		%REC	1	11/13/2015 4:53:12 PM	22327
Surr: Phenol-d5	61.1	4.13-124		%REC	1	11/13/2015 4:53:12 PM	22327
Surr: 2,4,6-Tribromophenol	97.0	5.14-132		%REC	1	11/13/2015 4:53:12 PM	22327
Surr: Nitrobenzene-d5	87.2	9.13-140		%REC	1	11/13/2015 4:53:12 PM	22327
Surr: 2-Fluorobiphenyl	88.1	10.8-132		%REC	1	11/13/2015 4:53:12 PM	22327
Surr: 4-Terphenyl-d14	53.8	12.9-107		%REC	1	11/13/2015 4:53:12 PM	22327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 4th QTR (MKTF)

Collection Date:

Lab ID: 1511373-009

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/12/2015 2:39:52 PM	A30203
Surr: BFB	80.1	57.8-137		%REC	1	11/12/2015 2:39:52 PM	A30203
EPA METHOD 8260B: VOLATILES							Analyst: BCN
Benzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Toluene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Ethylbenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Naphthalene	ND	2.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1-Methylnaphthalene	ND	4.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
2-Methylnaphthalene	ND	4.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Acetone	ND	10		µg/L	1	11/12/2015 12:06:46 AM	R30176
Bromobenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Bromodichloromethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Bromoform	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Bromomethane	ND	3.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
2-Butanone	ND	10		µg/L	1	11/12/2015 12:06:46 AM	R30176
Carbon disulfide	ND	10		µg/L	1	11/12/2015 12:06:46 AM	R30176
Carbon Tetrachloride	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Chlorobenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Chloroethane	ND	2.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Chloroform	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Chloromethane	ND	3.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
2-Chlorotoluene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
4-Chlorotoluene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
cis-1,2-DCE	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Dibromochloromethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Dibromomethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,1-Dichloroethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,1-Dichloroethene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511373

Date Reported: 12/9/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2015 4th QTR (MKTF)

Collection Date:

Lab ID: 1511373-009

Matrix: AQUEOUS

Received Date: 11/9/2015 3:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: BCN
1,2-Dichloropropane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,3-Dichloropropane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
2,2-Dichloropropane	ND	2.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,1-Dichloropropene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Hexachlorobutadiene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
2-Hexanone	ND	10		µg/L	1	11/12/2015 12:06:46 AM	R30176
Isopropylbenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
4-Isopropyltoluene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
4-Methyl-2-pentanone	ND	10		µg/L	1	11/12/2015 12:06:46 AM	R30176
Methylene Chloride	ND	3.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
n-Butylbenzene	ND	3.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
n-Propylbenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
sec-Butylbenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Styrene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
tert-Butylbenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
trans-1,2-DCE	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Trichlorofluoromethane	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Vinyl chloride	ND	1.0		µg/L	1	11/12/2015 12:06:46 AM	R30176
Xylenes, Total	ND	1.5		µg/L	1	11/12/2015 12:06:46 AM	R30176
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	11/12/2015 12:06:46 AM	R30176
Surr: 4-Bromofluorobenzene	87.5	70-130		%REC	1	11/12/2015 12:06:46 AM	R30176
Surr: Dibromofluoromethane	84.6	70-130		%REC	1	11/12/2015 12:06:46 AM	R30176
Surr: Toluene-d8	104	70-130		%REC	1	11/12/2015 12:06:46 AM	R30176

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	MB-B	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	B30352	RunNo:	30352					
Prep Date:		Analysis Date:	11/19/2015	SeqNo:	926394	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-B	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	B30352	RunNo:	30352					
Prep Date:		Analysis Date:	11/19/2015	SeqNo:	926395	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.49	0.0020	0.5000	0	98.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.4	85	115			
Calcium	49	1.0	50.00	0	97.2	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.50	0.0060	0.5000	0	99.6	85	115			
Iron	0.46	0.020	0.5000	0	92.9	85	115			
Magnesium	48	1.0	50.00	0	96.3	85	115			
Manganese	0.48	0.0020	0.5000	0	95.8	85	115			
Potassium	49	1.0	50.00	0	97.7	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.48	0.010	0.5000	0	96.5	85	115			

Sample ID	LLCS-B	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	B30352	RunNo:	30352					
Prep Date:		Analysis Date:	11/19/2015	SeqNo:	926396	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.0024	0.0020	0.002000	0	121	50	150			
Cadmium	ND	0.0020	0.002000	0	86.5	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Chromium	ND	0.0060	0.006000	0	86.0	50	150			
Copper	0.0070	0.0060	0.006000	0	117	50	150			
Iron	ND	0.020	0.02000	0	92.0	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	LLLCS-B		SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: B30352			RunNo: 30352				
Prep Date:	Analysis Date: 11/19/2015			SeqNo: 926396		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	ND	1.0	0.5000	0	101	50	150			
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Potassium	ND	1.0	0.5000	0	95.3	50	150			
Silver	ND	0.0050	0.005000	0	95.0	50	150			
Zinc	ND	0.010	0.005000	0	106	50	150			

Sample ID	MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: A30462			RunNo: 30462					
Prep Date:		Analysis Date: 11/24/2015			SeqNo: 929596		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								

Sample ID	LCS-A		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: A30462			RunNo: 30462				
Prep Date:	Analysis Date: 11/24/2015			SeqNo: 929600		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.7	85	115			
Calcium	52	1.0	50.00	0	103	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	49	1.0	50.00	0	98.4	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Sodium	49	1.0	50.00	0	97.3	85	115			

Sample ID	LLLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30462		RunNo: 30462					
Prep Date:			Analysis Date: 11/24/2015		SeqNo: 929601		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0025	0.0020	0.002000	0	126	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	ND	1.0	0.5000	0	96.6	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	LLLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A30462		RunNo: 30462					
Prep Date:			Analysis Date: 11/24/2015		SeqNo: 929601		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	99.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	MB-22296		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 22296		RunNo: 30187					
Prep Date:	11/11/2015		Analysis Date: 11/12/2015		SeqNo: 919859		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LLCS-22296		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 22296		RunNo: 30187					
Prep Date:	11/11/2015		Analysis Date: 11/12/2015		SeqNo: 919860		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0029	0.0020	0.002000	0	144	50	150			
Cadmium	ND	0.0020	0.002000	0	97.0	50	150			
Chromium	0.0061	0.0060	0.006000	0	101	50	150			
Copper	0.0085	0.0060	0.006000	0	141	50	150			
Iron	ND	0.020	0.02000	0	64.2	50	150			
Manganese	ND	0.0020	0.002000	0	99.0	50	150			
Silver	ND	0.0050	0.005000	0	94.4	50	150			
Zinc	ND	0.010	0.005000	0	109	50	150			

Sample ID	LCS-22296		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 22296		RunNo: 30187					
Prep Date:	11/11/2015		Analysis Date: 11/12/2015		SeqNo: 919861		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.6	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Manganese	0.48	0.0020	0.5000	0	96.0	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.47	0.010	0.5000	0	94.1	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	1511373-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-44		Batch ID: 22296			RunNo: 30284				
Prep Date:	11/11/2015		Analysis Date: 11/17/2015			SeqNo: 924041		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1526	94.6	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.9	70	130			
Chromium	0.48	0.0060	0.5000	0.01238	93.7	70	130			
Copper	0.53	0.0060	0.5000	0.008050	105	70	130			
Manganese	0.75	0.0020	0.5000	0.2869	92.2	70	130			
Zinc	0.50	0.010	0.5000	0.03675	92.6	70	130			

Sample ID	1511373-002FMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-44		Batch ID: 22296			RunNo: 30284				
Prep Date:	11/11/2015		Analysis Date: 11/17/2015			SeqNo: 924042		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1526	96.6	70	130	1.61	20	
Cadmium	0.50	0.0020	0.5000	0	100	70	130	1.31	20	
Chromium	0.49	0.0060	0.5000	0.01238	95.3	70	130	1.66	20	
Copper	0.54	0.0060	0.5000	0.008050	107	70	130	1.65	20	
Manganese	0.76	0.0020	0.5000	0.2869	93.9	70	130	1.16	20	
Zinc	0.51	0.010	0.5000	0.03675	95.1	70	130	2.45	20	

Sample ID	1511373-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-44		Batch ID: 22296			RunNo: 30311				
Prep Date:	11/11/2015		Analysis Date: 11/18/2015			SeqNo: 925008		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.058	0.0050	0.1000	0	57.9	70	130			S

Sample ID	1511373-002FMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-44		Batch ID: 22296			RunNo: 30311				
Prep Date:	11/11/2015		Analysis Date: 11/18/2015			SeqNo: 925009		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.058	0.0050	0.1000	0	57.8	70	130	0.242	20	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: F30497		RunNo: 30497					
Prep Date:			Analysis Date: 11/25/2015		SeqNo: 931125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Lead	0.012	0.00050	0.01250	0	96.1	85	115			
Selenium	0.023	0.0010	0.02500	0	91.5	85	115			
Uranium	0.012	0.00050	0.01250	0	99.2	85	115			

Sample ID	LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: F30497			RunNo: 30497					
Prep Date:		Analysis Date: 11/25/2015			SeqNo: 931128		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	88.8	50	150			
Lead	ND	0.00050	0.0005000	0	98.0	50	150			
Selenium	ND	0.0010	0.001000	0	92.4	50	150			
Uranium	ND	0.00050	0.0005000	0	97.2	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: F30497			RunNo: 30497					
Prep Date:		Analysis Date: 11/25/2015			SeqNo: 931131		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	1511373-007GMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	MKTF-39		Batch ID: C30537		RunNo: 30537					
Prep Date:			Analysis Date: 11/30/2015		SeqNo: 932337		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.004301	99.7	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30537		RunNo: 30537					
Prep Date:			Analysis Date: 11/30/2015		SeqNo: 932369		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.4	85	115			
Lead	0.012	0.00050	0.01250	0	94.8	85	115			
Selenium	0.025	0.0010	0.02500	0	98.2	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: C30537		RunNo: 30537					
Prep Date:			Analysis Date: 11/30/2015		SeqNo: 932369		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	97.3	85	115			

Sample ID	LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: C30537			RunNo: 30537					
Prep Date:		Analysis Date: 11/30/2015			SeqNo: 932371		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	ND	0.00050	0.0005000	0	99.1	50	150			
Selenium	ND	0.0010	0.001000	0	99.0	50	150			
Uranium	ND	0.00050	0.0005000	0	97.9	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: C30537			RunNo: 30537					
Prep Date:		Analysis Date: 11/30/2015			SeqNo: 932373		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: D30584		RunNo: 30584					
Prep Date:			Analysis Date: 12/2/2015		SeqNo: 934468		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.011	0.00050	0.01250	0	91.6	85	115			
Uranium	0.011	0.00050	0.01250	0	91.6	85	115			

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D30584		RunNo: 30584					
Prep Date:			Analysis Date: 12/2/2015		SeqNo: 934469		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Uranium	ND	0.00050	0.0005000	0	95.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: D30584			RunNo: 30584					
Prep Date:		Analysis Date: 12/2/2015			SeqNo: 934470		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	B30643	RunNo:	30643					
Prep Date:		Analysis Date:	12/4/2015	SeqNo:	936148	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	94.5	85	115			

Sample ID	LLLCS	SampType:	LCSLL	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	B30643	RunNo:	30643					
Prep Date:		Analysis Date:	12/4/2015	SeqNo:	936150	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0010	0.0010	0.001000	0	100	50	150			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: B30643			RunNo: 30643					
Prep Date:		Analysis Date: 12/4/2015			SeqNo: 936153		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	MB-22296		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 22296		RunNo: 30252					
Prep Date:	11/11/2015		Analysis Date: 11/15/2015		SeqNo: 922325		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22296		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 22296		RunNo: 30252					
Prep Date:	11/11/2015		Analysis Date: 11/15/2015		SeqNo: 922328		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.013	0.00050	0.01250	0	107	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	MSLLCS-22296		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 22296		RunNo: 30252					
Prep Date:	11/11/2015		Analysis Date: 11/15/2015		SeqNo: 922330		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0012	0.0010	0.001000	0	116	50	150			
Lead	ND	0.00050	0.0005000	0	98.0	50	150			
Selenium	ND	0.0010	0.001000	0	95.6	50	150			
Uranium	ND	0.00050	0.0005000	0	96.3	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	MB-22361		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 22361		RunNo: 30290					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923923		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22361		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 22361		RunNo: 30290					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923924		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0045	0.00020	0.005000	0	89.5	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30148	RunNo:	30148					
Prep Date:		Analysis Date:	11/10/2015	SeqNo:	918750	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30148	RunNo:	30148					
Prep Date:		Analysis Date:	11/10/2015	SeqNo:	918751	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Chloride	4.8	0.50	5.000	0	96.4	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.8	90	110			
Bromide	2.5	0.10	2.500	0	99.8	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.9	0.50	10.00	0	98.9	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R30404	RunNo:	30404					
Prep Date:		Analysis Date:	11/20/2015	SeqNo:	927748	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R30404	RunNo:	30404					
Prep Date:		Analysis Date:	11/20/2015	SeqNo:	927749	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	MB-22271		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 22271		RunNo: 30192					
Prep Date:	11/10/2015		Analysis Date: 11/12/2015		SeqNo: 919887		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		111	72	136			

Sample ID	LCS-22271		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 22271		RunNo: 30192					
Prep Date:	11/10/2015		Analysis Date: 11/12/2015		SeqNo: 919888		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	109	52.4	154			
Surr: DNOP	0.56		0.5000		112	72	136			

Sample ID	1511373-002CMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MKTF-44		Batch ID: 22271		RunNo: 30192					
Prep Date:	11/10/2015		Analysis Date: 11/12/2015		SeqNo: 919900		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	103	41.3	177			
Surr: DNOP	0.58		0.5000		117	72	136			

Sample ID	1511373-002CMSD			SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range			
Client ID:	MKTF-44			Batch ID:	22271		RunNo:	30192			
Prep Date:	11/10/2015			Analysis Date:	11/12/2015		SeqNo:	919901		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	115	-94.6	317	11.6	22.1		
Surr: DNOP	0.60		0.5000		121	72	136	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: A30203		RunNo: 30203					
Prep Date:			Analysis Date: 11/12/2015		SeqNo: 920301		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		83.0	57.8	137			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: A30203		RunNo: 30203					
Prep Date:			Analysis Date: 11/12/2015		SeqNo: 920302		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.7	80	120			
Surr: BFB	20		20.00		99.2	57.8	137			

Sample ID	1511373-003BMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-22		Batch ID: A30203		RunNo: 30203					
Prep Date:			Analysis Date: 11/12/2015		SeqNo: 920308		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	1.0	10.00	14.39	101	70	130			
Surr: BFB	410		400.0		103	57.8	137			

Sample ID	1511373-003BMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	MKTF-22		Batch ID:	A30203		RunNo:	30203				
Prep Date:			Analysis Date:	11/12/2015		SeqNo:	920309		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	24	1.0	10.00	14.39	101	70	130	0.278	20		
Surr: BFB	420		400.0		106	57.8	137	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R30176		RunNo: 30176					
Prep Date:			Analysis Date: 11/11/2015		SeqNo: 919390		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.2	70	130			
Toluene	19	1.0	20.00	0	95.3	70	130			
Chlorobenzene	18	1.0	20.00	0	91.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.9	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.5	70	130			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	8.5		10.00		84.7	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.4	70	130			
Surr: Toluene-d8	9.5		10.00		94.5	70	130			

Sample ID	rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R30176			RunNo: 30176					
Prep Date:		Analysis Date: 11/11/2015			SeqNo: 919391		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R30176	RunNo:	30176					
Prep Date:		Analysis Date:	11/11/2015	SeqNo:	919391	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	rb1		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R30176		RunNo:	30176			
Prep Date:			Analysis Date:	11/11/2015		SeqNo:	919391	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		88.7	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID	1511373-002ams		SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	MKTF-44		Batch ID:	R30176		RunNo:	30176			
Prep Date:			Analysis Date:	11/11/2015		SeqNo:	919399	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	83.5	70	130			
Toluene	18	1.0	20.00	0	92.3	70	130			
Chlorobenzene	17	1.0	20.00	0	83.5	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	84.2	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	80.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.6	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.0	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.4	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Sample ID	1511373-002amsd		SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	MKTF-44		Batch ID:	R30176		RunNo:	30176			
Prep Date:			Analysis Date:	11/11/2015		SeqNo:	919400	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	80.1	70	130	4.24	20	
Toluene	18	1.0	20.00	0	91.4	70	130	0.893	20	
Chlorobenzene	17	1.0	20.00	0	82.6	70	130	1.10	20	
1,1-Dichloroethene	17	1.0	20.00	0	82.8	70	130	1.66	20	
Trichloroethene (TCE)	15	1.0	20.00	0	75.6	70	130	6.09	20	
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.4		10.00		84.3	70	130	0	0	
Surr: Dibromofluoromethane	8.7		10.00		86.6	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	mb-22327		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 22327		RunNo: 30276					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 923158		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	mb-22327		SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID: 22327			RunNo: 30276				
Prep Date:	11/13/2015		Analysis Date: 11/13/2015			SeqNo: 923158	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		65.4	4.63	113			
Surr: Phenol-d5	140		200.0		69.2	4.13	124			
Surr: 2,4,6-Tribromophenol	160		200.0		80.7	5.14	132			
Surr: Nitrobenzene-d5	73		100.0		72.8	9.13	140			
Surr: 2-Fluorobiphenyl	72		100.0		72.3	10.8	132			
Surr: 4-Terphenyl-d14	54		100.0		54.0	12.9	107			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	lcs-22327		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSW		Batch ID: 22327			RunNo: 30276				
Prep Date:	11/13/2015		Analysis Date: 11/13/2015			SeqNo: 923159		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.0	40.2	107			
4-Chloro-3-methylphenol	150	10	200.0	0	75.8	48.2	107			
2-Chlorophenol	140	10	200.0	0	68.9	42.5	106			
1,4-Dichlorobenzene	68	10	100.0	0	68.0	31.6	111			
2,4-Dinitrotoluene	60	10	100.0	0	59.8	33.6	86.5			
N-Nitrosodi-n-propylamine	75	10	100.0	0	75.3	44	106			
4-Nitrophenol	120	10	200.0	0	60.4	25.5	109			
Pentachlorophenol	130	20	200.0	0	64.5	38.8	97.8			
Phenol	130	10	200.0	0	66.7	22.7	116			
Pyrene	72	10	100.0	0	72.1	29.3	138			
1,2,4-Trichlorobenzene	84	10	100.0	0	83.8	35.3	123			
Surr: 2-Fluorophenol	140		200.0		67.7	4.63	113			
Surr: Phenol-d5	150		200.0		75.8	4.13	124			
Surr: 2,4,6-Tribromophenol	170		200.0		83.2	5.14	132			
Surr: Nitrobenzene-d5	75		100.0		75.1	9.13	140			
Surr: 2-Fluorobiphenyl	82		100.0		81.8	10.8	132			
Surr: 4-Terphenyl-d14	69		100.0		69.3	12.9	107			

Sample ID	lcsd-22327		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 22327		RunNo: 30276					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 923160		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	71	10	100.0	0	71.3	40.2	107	2.25	46.7	
4-Chloro-3-methylphenol	160	10	200.0	0	77.6	48.2	107	2.39	29.4	
2-Chlorophenol	150	10	200.0	0	74.2	42.5	106	7.31	38.7	
1,4-Dichlorobenzene	74	10	100.0	0	74.5	31.6	111	9.01	25.3	
2,4-Dinitrotoluene	68	10	100.0	0	67.7	33.6	86.5	12.4	35.6	
N-Nitrosodi-n-propylamine	85	10	100.0	0	84.6	44	106	11.6	30.2	
4-Nitrophenol	130	10	200.0	0	66.2	25.5	109	9.11	42.2	
Pentachlorophenol	130	20	200.0	0	65.5	38.8	97.8	1.51	35.5	
Phenol	150	10	200.0	0	75.2	22.7	116	11.9	32	
Pyrene	71	10	100.0	0	71.4	29.3	138	1.03	27.1	
1,2,4-Trichlorobenzene	84	10	100.0	0	84.3	35.3	123	0.524	43.3	
Surr: 2-Fluorophenol	150		200.0		72.5	4.63	113	0	0	
Surr: Phenol-d5	160		200.0		80.9	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		84.5	5.14	132	0	0	
Surr: Nitrobenzene-d5	75		100.0		75.1	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	82		100.0		82.4	10.8	132	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511373

09-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR (MKTF)

Sample ID	lcsd-22327		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 22327		RunNo: 30276					
Prep Date:	11/13/2015		Analysis Date: 11/13/2015		SeqNo: 923160		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	66		100.0		65.9	12.9	107	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1511373

RcptNo: 1

Received by/date: AE 11/10/15

Logged By: Anne Thorne 11/9/2015 3:45:00 PM

Completed By: Anne Thorne 11/10/2015

Reviewed By: mg 11/10/15

Anne Thorne

Anne Thorne

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒ CS 11/10/15
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? CS 11/10/15 Yes ☒ No ☒ Sample -909B has a bubble. CS 11/10/15 No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

of preserved bottles checked for pH: 17
(<2 or >12 unless noted)
Adjusted? yes
Checked by: CS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks: For metals analysis, added 1 ml HNO₃ to -007F for acceptable pH.
18. Cooler Information Held for 24 hours prior to analysis. CS 11/10/15

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Chain-of-Custody Record									
Client:		Western Refining Company							
Mailing Address:		GALLUP REFINERY							
Phone #:		92 GIANT CROSSING ROAD, GALLUP, NM 87301							
Email or Fax#:		505-722-3833							
QAVQC Package:		505-863-0930							
☐ Standard		☐ Level 4 (Full Validation)		☐ Other					
Accreditation:									
☐ NELAP									
☐ EDD (Type)									
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	Turn-Around Time:		
11/9/2015	700	AQUEOUS	FIELD BLANK	3-40ML VOA	HCL	-201	X Standard ☐ Rush		
11/9/2015	740	AQUEOUS	MKTF-44	MISC	MISC	-202	Project Name:		
11/9/2015	845	AQUEOUS	MKTF-22	MISC	MISC	-203	2015 4th QTR (MKTF)		
11/9/2015	915	AQUEOUS	MKTF-33	MISC	MISC	-204	PO #20825205		
11/9/2015	943	AQUEOUS	MKTF-23*	MISC	MISC	-205	Project Manager:		
11/9/2015	1030	AQUEOUS	MKTF-38	MISC	MISC	-206	C. JOHNSON (cheryl.johnson@wnr.com)		
11/9/2015	1100	AQUEOUS	MKTF-39	MISC	MISC	-207	Sampler:		
11/9/2015	At 11:00 AM	AQUEOUS		MISC	MISC	-208	On Ice: ☒ Yes ☐ No		
11/9/2015	700	AQUEOUS	BLIND DUPLICATE	MISC	MISC	-209	Sample Temperature: 18°C		
11/9/2015	700	AQUEOUS	TRIP BLANK	MISC	MISC	-210			
				MISC	MISC				
				MISC	MISC				
				MISC	MISC				
				MISC	MISC				
				MISC	MISC				
				MISC	MISC				
				MISC	MISC				
Date:	Time:	Relinquished by:	Received by:						
11/9/2015	1300	[Signature]	3 [Signature] Date Time 11/9/15 1350						
Date:	Time:	Relinquished by:	Received by:						
11/9/2015	1545	[Signature]	Cody [Signature] Date Time 11/9/15 1545						

if necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 07, 2015

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2015 4th QTR MKTF Wells

OrderNo.: 1511507

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/11/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1511507

Date Reported: 12/7/2015

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2015 4th QTR MKTF Wells

Collection Date: 11/10/2015 10:00:00 AM

Lab ID: 1511507-001

Matrix: AQUEOUS

Received Date: 11/11/2015 3:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	1.0	0.10		mg/L	1	11/12/2015 2:33:55 AM	A30163
Chloride	250	10		mg/L	20	11/12/2015 2:46:19 AM	A30163
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/12/2015 2:33:55 AM	A30163
Bromide	2.2	0.10		mg/L	1	11/12/2015 2:33:55 AM	A30163
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/12/2015 2:33:55 AM	A30163
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/12/2015 2:33:55 AM	A30163
Sulfate	14	0.50		mg/L	1	11/12/2015 2:33:55 AM	A30163
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.66	0.0020		mg/L	1	11/18/2015 2:16:50 PM	22356
Cadmium	ND	0.0020		mg/L	1	11/18/2015 2:16:50 PM	22356
Calcium	66	1.0		mg/L	1	11/18/2015 2:16:50 PM	22356
Chromium	ND	0.0060		mg/L	1	11/18/2015 2:16:50 PM	22356
Copper	ND	0.0060		mg/L	1	11/18/2015 2:16:50 PM	22356
Iron	0.29	0.020		mg/L	1	11/18/2015 2:16:50 PM	22356
Magnesium	12	1.0		mg/L	1	11/18/2015 2:16:50 PM	22356
Manganese	1.4	0.010	*	mg/L	5	11/18/2015 2:18:52 PM	22356
Potassium	2.6	1.0		mg/L	1	11/18/2015 2:16:50 PM	22356
Silver	ND	0.0050		mg/L	1	11/18/2015 2:16:50 PM	22356
Sodium	510	10		mg/L	10	11/18/2015 7:25:45 PM	22356
Zinc	ND	0.010		mg/L	1	11/18/2015 2:16:50 PM	22356
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.013	0.0050	*	mg/L	5	11/24/2015 2:27:24 PM	22356
Lead	0.00090	0.00050		mg/L	1	11/20/2015 7:26:29 PM	22356
Selenium	ND	0.020		mg/L	20	12/1/2015 5:43:19 PM	22356
Uranium	0.037	0.0025	*	mg/L	5	11/24/2015 2:27:24 PM	22356
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	11/24/2015 5:21:49 PM	22501

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511507

07-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-22356	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	22356	RunNo:	30284					
Prep Date:	11/16/2015	Analysis Date:	11/17/2015	SeqNo:	923641	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-22356	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	22356	RunNo:	30284					
Prep Date:	11/16/2015	Analysis Date:	11/17/2015	SeqNo:	923642	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.8	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Manganese	0.49	0.0020	0.5000	0	98.3	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.091	0.0050	0.1000	0	91.1	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.49	0.010	0.5000	0	98.9	85	115			

Sample ID	LLCS-22356	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	22356	RunNo:	30284					
Prep Date:	11/16/2015	Analysis Date:	11/17/2015	SeqNo:	923643	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0025	0.0020	0.002000	0	124	50	150			
Cadmium	ND	0.0020	0.002000	0	95.0	50	150			
Calcium	ND	1.0	0.5000	0	107	50	150			
Chromium	ND	0.0060	0.006000	0	84.3	50	150			
Iron	0.024	0.020	0.02000	0	120	50	150			
Magnesium	ND	1.0	0.5000	0	108	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511507

07-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	LLLCS-22356		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 22356		RunNo: 30284					
Prep Date:	11/16/2015		Analysis Date: 11/17/2015		SeqNo: 923643		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Potassium	ND	1.0	0.5000	0	98.2	50	150			
Silver	ND	0.0050	0.005000	0	93.2	50	150			
Sodium	ND	1.0	0.5000	0	103	50	150			
Zinc	ND	0.010	0.005000	0	141	50	150			

Sample ID	MB-22356		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 22356		RunNo: 30311					
Prep Date:	11/16/2015		Analysis Date: 11/18/2015		SeqNo: 924763		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID	LCS-22356			SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW			Batch ID:	22356		RunNo:	30311			
Prep Date:	11/16/2015			Analysis Date:	11/18/2015		SeqNo:	924764		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Copper	0.50	0.0060	0.5000	0	101	85	115				

Sample ID	LLLCS-22356	SampType: LCSLL			TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID: 22356			RunNo: 30311					
Prep Date:	11/16/2015	Analysis Date: 11/18/2015			SeqNo: 924765		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0063	0.0060	0.006000	0	105	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511507

07-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-22356		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 22356		RunNo: 30402					
Prep Date:	11/16/2015		Analysis Date: 11/20/2015		SeqNo: 927737		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-22356		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 22356		RunNo: 30402					
Prep Date:	11/16/2015		Analysis Date: 11/20/2015		SeqNo: 927740		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.024	0.0010	0.02500	0	97.4	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	MSLLCS-22356		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 22356		RunNo: 30402					
Prep Date:	11/16/2015		Analysis Date: 11/20/2015		SeqNo: 927743		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	99.0	50	150			
Lead	0.00056	0.00050	0.0005000	0	112	50	150			
Selenium	ND	0.0010	0.001000	0	97.1	50	150			
Uranium	0.00051	0.00050	0.0005000	0	103	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511507

07-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB-22501	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	22501	RunNo:	30468					
Prep Date:	11/24/2015	Analysis Date:	11/24/2015	SeqNo:	929969	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-22501	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	22501	RunNo:	30468					
Prep Date:	11/24/2015	Analysis Date:	11/24/2015	SeqNo:	929970	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511507

07-Dec-15

Client: Western Refining Southwest, Gallup

Project: 2015 4th QTR MKTF Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A30163	RunNo:	30163					
Prep Date:		Analysis Date:	11/12/2015	SeqNo:	919536	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	A30163	RunNo:	30163					
Prep Date:		Analysis Date:	11/12/2015	SeqNo:	919537	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.55	0.10	0.5000	0	110	90	110			
Chloride	4.9	0.50	5.000	0	97.4	90	110			
Nitrogen, Nitrite (As N)	0.99	0.10	1.000	0	99.1	90	110			
Bromide	2.6	0.10	2.500	0	105	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	100	90	110			
Sulfate	10	0.50	10.00	0	99.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1511507**

RcptNo: **1**

Received by/date:

CS

11/11/15

Logged By: **Ashley Gallegos**

11/11/2015 3:15:00 PM

AG

Completed By: **Ashley Gallegos**

11/11/2015 4:53:47 PM

AG

Reviewed By:

[Signature]

11/12/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 1

Adjusted? (<2) or >12 unless noted)

NO

Checked by: *[Signature]*

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

