

AP-111

AGWMR (10)

2014



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

December 11, 2014

Cheryl Johnson

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

RE: 2014 4th QTR MKTF WELLS/STP-1NW

OrderNo.: 1411835

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 11/19/2014 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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 9:55:00 AM

Lab ID: 1411835-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	2.7	1.0		mg/L	1	11/21/2014 1:34:33 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 1:34:33 AM	16493
Surr: DNOP	77.0	59-141		%REC	1	11/21/2014 1:34:33 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	53	2.5		mg/L	50	11/22/2014 1:18:18 AM	R22716
Surr: BFB	90.2	80-120		%REC	50	11/22/2014 1:18:18 AM	R22716
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	1.5	0.50		mg/L	5	11/19/2014 8:47:37 PM	R22657
Chloride	700	25		mg/L	50	12/1/2014 9:52:38 PM	R22875
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/19/2014 8:47:37 PM	R22657
Bromide	1.8	0.50		mg/L	5	11/19/2014 8:47:37 PM	R22657
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/19/2014 8:47:37 PM	R22657
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/19/2014 8:47:37 PM	R22657
Sulfate	ND	2.5		mg/L	5	11/19/2014 8:47:37 PM	R22657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.88	0.0020		mg/L	1	12/1/2014 3:47:27 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 3:47:27 PM	R22857
Calcium	62	1.0		mg/L	1	12/1/2014 3:47:27 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 3:47:27 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 3:47:27 PM	R22857
Iron	7.2	0.20	*	mg/L	10	12/1/2014 5:11:30 PM	R22857
Magnesium	16	1.0		mg/L	1	12/1/2014 3:47:27 PM	R22857
Manganese	1.1	0.020	*	mg/L	10	12/1/2014 5:11:30 PM	R22857
Potassium	1.2	1.0		mg/L	1	12/1/2014 3:47:27 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 3:47:27 PM	R22857
Sodium	840	10		mg/L	10	12/1/2014 5:11:30 PM	R22857
Zinc	0.019	0.010		mg/L	1	12/1/2014 3:47:27 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.1	0.010		mg/L	5	12/1/2014 4:43:26 PM	16592
Cadmium	ND	0.0020		mg/L	1	12/1/2014 3:58:07 PM	16592
Chromium	ND	0.0060		mg/L	1	12/1/2014 3:58:07 PM	16592
Copper	ND	0.0060		mg/L	1	12/1/2014 3:58:07 PM	16592
Iron	10	0.40	*	mg/L	20	12/1/2014 4:45:08 PM	16592
Manganese	1.3	0.010	*	mg/L	5	12/1/2014 4:43:26 PM	16592
Silver	ND	0.0050		mg/L	1	12/1/2014 3:58:07 PM	16592
Zinc	0.050	0.010		mg/L	1	12/1/2014 3:58:07 PM	16592

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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

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	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 greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411835

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Client Sample ID: MKTF-16

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 9:55:00 AM

Lab ID: 1411835-001

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Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	12/4/2014 2:28:21 PM	R22933
Lead	ND	0.0010		mg/L	1	12/4/2014 12:40:43 PM	R22933
Selenium	ND	0.010		mg/L	10	12/4/2014 2:28:21 PM	R22933
Uranium	ND	0.0010		mg/L	1	12/4/2014 12:40:43 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.010	0.0050	*	mg/L	5	12/3/2014 6:09:38 PM	16592
Lead	0.0042	0.0010		mg/L	1	12/3/2014 3:52:49 PM	16592
Selenium	ND	0.050		mg/L	5	12/3/2014 6:09:38 PM	16592
Uranium	0.0016	0.0010		mg/L	1	12/3/2014 3:52:49 PM	16592
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 1:54:07 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Aniline	18	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 11:03:09 AM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Bis(2-ethylhexyl)phthalate	14	10	B	µg/L	1	11/25/2014 11:03:09 AM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507

Refer to the QC Summary report and 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 62
	E	Value 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 greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

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Analytical Report

Lab Order 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 9:55:00 AM

Lab ID: 1411835-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 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	11/25/2014 11:03:09 AM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 11:03:09 AM	16507
2,4-Dimethylphenol	80	10		µg/L	1	11/25/2014 11:03:09 AM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 11:03:09 AM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 11:03:09 AM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
1-Methylnaphthalene	47	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2-Methylnaphthalene	51	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2-Methylphenol	140	10		µg/L	1	11/25/2014 11:03:09 AM	16507
3+4-Methylphenol	16	10		µg/L	1	11/25/2014 11:03:09 AM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Naphthalene	130	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 11:03:09 AM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507

Refer to the QC Summary report and 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 62
	E	Value 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 greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
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Analytical Report

Lab Order 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 4th QTR MKTF WELLS/STP-1N

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Lab ID: 1411835-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Phenol	38	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Pyrene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 11:03:09 AM	16507
Surr: 2-Fluorophenol	33.6	17.6-104		%REC	1	11/25/2014 11:03:09 AM	16507
Surr: Phenol-d5	50.8	17.7-89.9		%REC	1	11/25/2014 11:03:09 AM	16507
Surr: 2,4,6-Tribromophenol	93.1	16.3-122		%REC	1	11/25/2014 11:03:09 AM	16507
Surr: Nitrobenzene-d5	83.6	45.3-117		%REC	1	11/25/2014 11:03:09 AM	16507
Surr: 2-Fluorobiphenyl	82.3	43-113		%REC	1	11/25/2014 11:03:09 AM	16507
Surr: 4-Terphenyl-d14	85.0	47.6-122		%REC	1	11/25/2014 11:03:09 AM	16507
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
Benzene	20000	500		µg/L	500	11/24/2014 2:10:28 PM	R22767
Toluene	1200	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Ethylbenzene	1300	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Methyl tert-butyl ether (MTBE)	1400	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2,4-Trimethylbenzene	1000	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,3,5-Trimethylbenzene	360	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Naphthalene	160	100		µg/L	50	11/24/2014 2:37:14 PM	R22767
1-Methylnaphthalene	ND	200		µg/L	50	11/24/2014 2:37:14 PM	R22767
2-Methylnaphthalene	ND	200		µg/L	50	11/24/2014 2:37:14 PM	R22767
Acetone	ND	500		µg/L	50	11/24/2014 2:37:14 PM	R22767
Bromobenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Bromodichloromethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Bromoform	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Bromomethane	ND	150		µg/L	50	11/24/2014 2:37:14 PM	R22767
2-Butanone	ND	500		µg/L	50	11/24/2014 2:37:14 PM	R22767
Carbon disulfide	ND	500		µg/L	50	11/24/2014 2:37:14 PM	R22767
Carbon Tetrachloride	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Chlorobenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Chloroethane	ND	100		µg/L	50	11/24/2014 2:37:14 PM	R22767
Chloroform	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Chloromethane	ND	150		µg/L	50	11/24/2014 2:37:14 PM	R22767
2-Chlorotoluene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
4-Chlorotoluene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
cis-1,2-DCE	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767

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	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

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EPA METHOD 8260B: VOLATILES					Analyst: cadg		
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/24/2014 2:37:14 PM	R22767
Dibromochloromethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Dibromomethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,3-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,4-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Dichlorodifluoromethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,1-Dichloroethane	81	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,1-Dichloroethene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2-Dichloropropane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,3-Dichloropropane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
2,2-Dichloropropane	ND	100		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,1-Dichloropropene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Hexachlorobutadiene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
2-Hexanone	ND	500		µg/L	50	11/24/2014 2:37:14 PM	R22767
Isopropylbenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
4-Isopropyltoluene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
4-Methyl-2-pentanone	ND	500		µg/L	50	11/24/2014 2:37:14 PM	R22767
Methylene Chloride	ND	150		µg/L	50	11/24/2014 2:37:14 PM	R22767
n-Butylbenzene	ND	150		µg/L	50	11/24/2014 2:37:14 PM	R22767
n-Propylbenzene	90	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
sec-Butylbenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Styrene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
tert-Butylbenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/24/2014 2:37:14 PM	R22767
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
trans-1,2-DCE	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,1,1-Trichloroethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,1,2-Trichloroethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Trichloroethene (TCE)	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Trichlorofluoromethane	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
1,2,3-Trichloropropane	ND	100		µg/L	50	11/24/2014 2:37:14 PM	R22767
Vinyl chloride	ND	50		µg/L	50	11/24/2014 2:37:14 PM	R22767
Xylenes, Total	5800	75		µg/L	50	11/24/2014 2:37:14 PM	R22767

Refer to the QC Summary report and 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 62
	E	Value 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 greater than 2.	
	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 **1411835**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 9:55:00 AM

Lab ID: 1411835-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	50	11/24/2014 2:37:14 PM	R22767
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	50	11/24/2014 2:37:14 PM	R22767
Surr: Dibromofluoromethane	89.9	70-130		%REC	50	11/24/2014 2:37:14 PM	R22767
Surr: Toluene-d8	105	70-130		%REC	50	11/24/2014 2:37:14 PM	R22767

Refer to the QC Summary report and 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 62
	E	Value 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 greater than 2.	
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:15:00 PM

Lab ID: 1411835-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	11/21/2014 1:55:47 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 1:55:47 AM	16493
Surr: DNOP	82.6	59-141		%REC	1	11/21/2014 1:55:47 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1.2	1.0		mg/L	20	11/22/2014 1:45:38 AM	R22716
Surr: BFB	90.2	80-120		%REC	20	11/22/2014 1:45:38 AM	R22716
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.66	0.10		mg/L	1	11/19/2014 9:12:26 PM	R22657
Chloride	84	10		mg/L	20	11/19/2014 9:24:51 PM	R22657
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/19/2014 9:12:26 PM	R22657
Bromide	0.44	0.10		mg/L	1	11/19/2014 9:12:26 PM	R22657
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/19/2014 9:12:26 PM	R22657
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/19/2014 9:12:26 PM	R22657
Sulfate	200	10		mg/L	20	11/19/2014 9:24:51 PM	R22657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.14	0.0020		mg/L	1	12/1/2014 3:49:28 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 3:49:28 PM	R22857
Calcium	92	1.0		mg/L	1	12/1/2014 3:49:28 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 3:49:28 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 3:49:28 PM	R22857
Iron	0.080	0.020		mg/L	1	12/1/2014 3:49:28 PM	R22857
Magnesium	17	1.0		mg/L	1	12/1/2014 3:49:28 PM	R22857
Manganese	2.8	0.010	*	mg/L	5	12/1/2014 5:13:20 PM	R22857
Potassium	1.1	1.0		mg/L	1	12/1/2014 3:49:28 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 3:49:28 PM	R22857
Sodium	280	5.0		mg/L	5	12/1/2014 5:13:20 PM	R22857
Zinc	0.027	0.010		mg/L	1	12/1/2014 3:49:28 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.21	0.0020		mg/L	1	12/1/2014 3:59:59 PM	16592
Cadmium	ND	0.0020		mg/L	1	12/1/2014 3:59:59 PM	16592
Chromium	ND	0.0060		mg/L	1	12/1/2014 3:59:59 PM	16592
Copper	ND	0.0060		mg/L	1	12/1/2014 3:59:59 PM	16592
Iron	2.0	0.10	*	mg/L	5	12/1/2014 4:48:53 PM	16592
Manganese	3.0	0.010	*	mg/L	5	12/1/2014 4:48:53 PM	16592
Silver	ND	0.0050		mg/L	1	12/1/2014 3:59:59 PM	16592
Zinc	0.019	0.010		mg/L	1	12/1/2014 3:59:59 PM	16592

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

Refer to the QC Summary report and 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	Page 7 of 62
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:15:00 PM

Lab ID: 1411835-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0047	0.0010		mg/L	1	12/4/2014 12:43:42 PM	R22933
Lead	ND	0.0010		mg/L	1	12/4/2014 12:43:42 PM	R22933
Selenium	ND	0.010		mg/L	1	12/4/2014 12:43:42 PM	R22933
Uranium	0.022	0.0010		mg/L	1	12/4/2014 12:43:42 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0051	0.0010		mg/L	1	12/3/2014 4:02:05 PM	16592
Lead	0.0031	0.0010		mg/L	1	12/3/2014 4:02:05 PM	16592
Selenium	ND	0.010		mg/L	1	12/3/2014 4:02:05 PM	16592
Uranium	0.025	0.0010		mg/L	1	12/3/2014 4:02:05 PM	16592
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 1:55:53 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Aniline	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 11:30:29 AM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Bis(2-ethylhexyl)phthalate	10	10	B	µg/L	1	11/25/2014 11:30:29 AM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:15:00 PM

Lab ID: 1411835-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 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	11/25/2014 11:30:29 AM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 11:30:29 AM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 11:30:29 AM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 11:30:29 AM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2-Methylphenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Naphthalene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 11:30:29 AM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:15:00 PM

Lab ID: 1411835-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Phenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Pyrene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 11:30:29 AM	16507
Surr: 2-Fluorophenol	61.9	17.6-104		%REC	1	11/25/2014 11:30:29 AM	16507
Surr: Phenol-d5	59.2	17.7-89.9		%REC	1	11/25/2014 11:30:29 AM	16507
Surr: 2,4,6-Tribromophenol	79.9	16.3-122		%REC	1	11/25/2014 11:30:29 AM	16507
Surr: Nitrobenzene-d5	74.6	45.3-117		%REC	1	11/25/2014 11:30:29 AM	16507
Surr: 2-Fluorobiphenyl	77.6	43-113		%REC	1	11/25/2014 11:30:29 AM	16507
Surr: 4-Terphenyl-d14	79.4	47.6-122		%REC	1	11/25/2014 11:30:29 AM	16507
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
Benzene	140	10		µg/L	10	11/24/2014 4:51:11 PM	R22767
Toluene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Ethylbenzene	78	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Methyl tert-butyl ether (MTBE)	570	100		µg/L	100	11/24/2014 4:24:27 PM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Naphthalene	ND	2.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
2-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Acetone	ND	10		µg/L	1	11/25/2014 9:16:58 PM	R22801
Bromobenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Bromodichloromethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Bromoform	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Bromomethane	ND	3.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
2-Butanone	ND	10		µg/L	1	11/25/2014 9:16:58 PM	R22801
Carbon disulfide	ND	10		µg/L	1	11/25/2014 9:16:58 PM	R22801
Carbon Tetrachloride	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Chlorobenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Chloroethane	ND	2.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Chloroform	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Chloromethane	ND	3.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
2-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
4-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
cis-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:15:00 PM

Lab ID: 1411835-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Dibromochloromethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Dibromomethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,1-Dichloroethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,1-Dichloroethene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,3-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
2,2-Dichloropropane	ND	2.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,1-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Hexachlorobutadiene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
2-Hexanone	ND	10		µg/L	1	11/25/2014 9:16:58 PM	R22801
Isopropylbenzene	9.1	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
4-Isopropyltoluene	3.0	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
4-Methyl-2-pentanone	ND	10		µg/L	1	11/25/2014 9:16:58 PM	R22801
Methylene Chloride	ND	3.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
n-Butylbenzene	ND	3.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
n-Propylbenzene	13	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
sec-Butylbenzene	2.1	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Styrene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
tert-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
trans-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Trichlorofluoromethane	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Vinyl chloride	ND	1.0		µg/L	1	11/25/2014 9:16:58 PM	R22801
Xylenes, Total	ND	1.5		µg/L	1	11/25/2014 9:16:58 PM	R22801

Refer to the QC Summary report and 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 greater than 2.
	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 **1411835**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:15:00 PM

Lab ID: 1411835-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%REC	1	11/25/2014 9:16:58 PM	R22801
Surr: 4-Bromofluorobenzene	88.4	70-130		%REC	1	11/25/2014 9:16:58 PM	R22801
Surr: Dibromofluoromethane	92.5	70-130		%REC	1	11/25/2014 9:16:58 PM	R22801
Surr: Toluene-d8	104	70-130		%REC	1	11/25/2014 9:16:58 PM	R22801

Refer to the QC Summary report and 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 12 of 62
	E	Value 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 greater than 2.	
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 4:15:00 PM

Lab ID: 1411835-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	2.3	1.0		mg/L	1	11/21/2014 2:17:09 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 2:17:09 AM	16493
Surr: DNOP	81.6	59-141		%REC	1	11/21/2014 2:17:09 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1.4	0.25		mg/L	5	11/22/2014 2:12:57 AM	R22716
Surr: BFB	98.2	80-120		%REC	5	11/22/2014 2:12:57 AM	R22716
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.68	0.50		mg/L	5	11/19/2014 9:37:15 PM	R22657
Chloride	160	10		mg/L	20	11/19/2014 9:49:40 PM	R22657
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/19/2014 9:37:15 PM	R22657
Bromide	0.81	0.50		mg/L	5	11/19/2014 9:37:15 PM	R22657
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/19/2014 9:37:15 PM	R22657
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/19/2014 9:37:15 PM	R22657
Sulfate	ND	2.5		mg/L	5	11/19/2014 9:37:15 PM	R22657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	2.4	0.010	*	mg/L	5	12/1/2014 5:15:15 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 3:51:14 PM	R22857
Calcium	77	1.0		mg/L	1	12/1/2014 3:51:14 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 3:51:14 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 3:51:14 PM	R22857
Iron	3.4	0.10	*	mg/L	5	12/1/2014 5:15:15 PM	R22857
Magnesium	21	1.0		mg/L	1	12/1/2014 3:51:14 PM	R22857
Manganese	1.7	0.010	*	mg/L	5	12/1/2014 5:15:15 PM	R22857
Potassium	1.1	1.0		mg/L	1	12/1/2014 3:51:14 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 3:51:14 PM	R22857
Sodium	280	5.0		mg/L	5	12/1/2014 5:15:15 PM	R22857
Zinc	0.025	0.010		mg/L	1	12/1/2014 3:51:14 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.5	0.010	*	mg/L	5	12/1/2014 4:50:52 PM	16592
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:01:34 PM	16592
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:01:34 PM	16592
Copper	ND	0.0060		mg/L	1	12/1/2014 4:01:34 PM	16592
Iron	4.0	0.10	*	mg/L	5	12/1/2014 4:50:52 PM	16592
Manganese	1.8	0.010	*	mg/L	5	12/1/2014 4:50:52 PM	16592
Silver	ND	0.0050		mg/L	1	12/1/2014 4:01:34 PM	16592
Zinc	0.020	0.010		mg/L	1	12/1/2014 4:01:34 PM	16592

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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 greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 4:15:00 PM

Lab ID: 1411835-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0020	0.0010		mg/L	1	12/4/2014 12:46:41 PM	R22933
Lead	ND	0.0010		mg/L	1	12/4/2014 12:46:41 PM	R22933
Selenium	ND	0.010		mg/L	1	12/4/2014 12:46:41 PM	R22933
Uranium	ND	0.0010		mg/L	1	12/4/2014 12:46:41 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	12/3/2014 4:05:10 PM	16592
Lead	0.0016	0.0010		mg/L	1	12/3/2014 4:05:10 PM	16592
Selenium	ND	0.010		mg/L	1	12/3/2014 4:05:10 PM	16592
Uranium	ND	0.0010		mg/L	1	12/3/2014 4:05:10 PM	16592
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 1:57:39 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Aniline	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 11:57:50 AM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Bis(2-ethylhexyl)phthalate	12	10	B	µg/L	1	11/25/2014 11:57:50 AM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 4:15:00 PM

Lab ID: 1411835-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 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	11/25/2014 11:57:50 AM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 11:57:50 AM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 11:57:50 AM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 11:57:50 AM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
1-Methylnaphthalene	110	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2-Methylnaphthalene	36	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2-Methylphenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Naphthalene	55	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 11:57:50 AM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 4:15:00 PM

Lab ID: 1411835-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Pyrene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 11:57:50 AM	16507
Surr: 2-Fluorophenol	72.2	17.6-104		%REC	1	11/25/2014 11:57:50 AM	16507
Surr: Phenol-d5	64.6	17.7-89.9		%REC	1	11/25/2014 11:57:50 AM	16507
Surr: 2,4,6-Tribromophenol	89.5	16.3-122		%REC	1	11/25/2014 11:57:50 AM	16507
Surr: Nitrobenzene-d5	85.1	45.3-117		%REC	1	11/25/2014 11:57:50 AM	16507
Surr: 2-Fluorobiphenyl	85.1	43-113		%REC	1	11/25/2014 11:57:50 AM	16507
Surr: 4-Terphenyl-d14	80.6	47.6-122		%REC	1	11/25/2014 11:57:50 AM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	96	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Toluene	7.6	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Ethylbenzene	90	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Methyl tert-butyl ether (MTBE)	100	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2,4-Trimethylbenzene	96	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,3,5-Trimethylbenzene	23	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Naphthalene	88	10		µg/L	5	11/24/2014 5:44:45 PM	R22767
1-Methylnaphthalene	200	20		µg/L	5	11/24/2014 5:44:45 PM	R22767
2-Methylnaphthalene	82	20		µg/L	5	11/24/2014 5:44:45 PM	R22767
Acetone	ND	50		µg/L	5	11/24/2014 5:44:45 PM	R22767
Bromobenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Bromodichloromethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Bromoform	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Bromomethane	ND	15		µg/L	5	11/24/2014 5:44:45 PM	R22767
2-Butanone	ND	50		µg/L	5	11/24/2014 5:44:45 PM	R22767
Carbon disulfide	ND	50		µg/L	5	11/24/2014 5:44:45 PM	R22767
Carbon Tetrachloride	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Chlorobenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Chloroethane	ND	10		µg/L	5	11/24/2014 5:44:45 PM	R22767
Chloroform	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Chloromethane	ND	15		µg/L	5	11/24/2014 5:44:45 PM	R22767
2-Chlorotoluene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
4-Chlorotoluene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
cis-1,2-DCE	5.6	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 4:15:00 PM

Lab ID: 1411835-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/24/2014 5:44:45 PM	R22767
Dibromochloromethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Dibromomethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,1-Dichloroethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,1-Dichloroethene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2-Dichloropropane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,3-Dichloropropane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
2,2-Dichloropropane	ND	10		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,1-Dichloropropene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Hexachlorobutadiene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
2-Hexanone	ND	50		µg/L	5	11/24/2014 5:44:45 PM	R22767
Isopropylbenzene	8.8	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
4-Isopropyltoluene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
4-Methyl-2-pentanone	ND	50		µg/L	5	11/24/2014 5:44:45 PM	R22767
Methylene Chloride	ND	15		µg/L	5	11/24/2014 5:44:45 PM	R22767
n-Butylbenzene	ND	15		µg/L	5	11/24/2014 5:44:45 PM	R22767
n-Propylbenzene	13	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
sec-Butylbenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Styrene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
tert-Butylbenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/24/2014 5:44:45 PM	R22767
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
trans-1,2-DCE	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Trichlorofluoromethane	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
1,2,3-Trichloropropane	ND	10		µg/L	5	11/24/2014 5:44:45 PM	R22767
Vinyl chloride	ND	5.0		µg/L	5	11/24/2014 5:44:45 PM	R22767
Xylenes, Total	47	7.5		µg/L	5	11/24/2014 5:44:45 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 4:15:00 PM

Lab ID: 1411835-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%REC	5	11/24/2014 5:44:45 PM	R22767
Surr: 4-Bromofluorobenzene	82.5	70-130		%REC	5	11/24/2014 5:44:45 PM	R22767
Surr: Dibromofluoromethane	92.5	70-130		%REC	5	11/24/2014 5:44:45 PM	R22767
Surr: Toluene-d8	104	70-130		%REC	5	11/24/2014 5:44:45 PM	R22767

Refer to the QC Summary report and 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 18 of 62
	E	Value 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 greater than 2.	
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:30:00 PM

Lab ID: 1411835-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	13	1.0		mg/L	1	11/21/2014 2:38:25 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 2:38:25 AM	16493
Surr: DNOP	86.6	59-141		%REC	1	11/21/2014 2:38:25 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	20	2.5		mg/L	50	11/22/2014 2:40:17 AM	R22716
Surr: BFB	91.2	80-120		%REC	50	11/22/2014 2:40:17 AM	R22716
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	0.50		mg/L	5	11/19/2014 10:02:04 PM	R22657
Chloride	110	10		mg/L	20	11/19/2014 10:14:29 PM	R22657
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/19/2014 10:02:04 PM	R22657
Bromide	1.2	0.50		mg/L	5	11/19/2014 10:02:04 PM	R22657
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/19/2014 10:02:04 PM	R22657
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/19/2014 10:02:04 PM	R22657
Sulfate	ND	2.5		mg/L	5	11/19/2014 10:02:04 PM	R22657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.6	0.010		mg/L	5	12/1/2014 5:17:09 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 3:52:55 PM	R22857
Calcium	140	5.0		mg/L	5	12/1/2014 5:17:09 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 3:52:55 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 3:52:55 PM	R22857
Iron	11	0.40	*	mg/L	20	12/1/2014 5:18:54 PM	R22857
Magnesium	28	1.0		mg/L	1	12/1/2014 3:52:55 PM	R22857
Manganese	3.0	0.010	*	mg/L	5	12/1/2014 5:17:09 PM	R22857
Potassium	1.1	1.0		mg/L	1	12/1/2014 3:52:55 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 3:52:55 PM	R22857
Sodium	270	5.0		mg/L	5	12/1/2014 5:17:09 PM	R22857
Zinc	0.018	0.010		mg/L	1	12/1/2014 3:52:55 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	3.6	0.020	*	mg/L	10	12/1/2014 4:52:45 PM	16592
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:03:16 PM	16592
Chromium	0.035	0.0060		mg/L	1	12/1/2014 4:03:16 PM	16592
Copper	0.043	0.0060		mg/L	1	12/1/2014 4:03:16 PM	16592
Iron	47	2.0	*	mg/L	100	12/1/2014 4:54:42 PM	16592
Manganese	5.6	0.020	*	mg/L	10	12/1/2014 4:52:45 PM	16592
Silver	ND	0.0050		mg/L	1	12/1/2014 4:03:16 PM	16592
Zinc	0.11	0.010		mg/L	1	12/1/2014 4:03:16 PM	16592

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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 greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:30:00 PM

Lab ID: 1411835-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.022	0.010	*	mg/L	10	12/4/2014 3:26:46 PM	R22933
Lead	0.0019	0.0010		mg/L	1	12/4/2014 12:49:40 PM	R22933
Selenium	ND	0.010		mg/L	10	12/4/2014 3:26:46 PM	R22933
Uranium	ND	0.0010		mg/L	1	12/4/2014 12:49:40 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.022	0.010	*	mg/L	10	12/3/2014 6:18:55 PM	16592
Lead	0.079	0.010	*	mg/L	10	12/3/2014 6:18:55 PM	16592
Selenium	ND	0.010		mg/L	10	12/3/2014 6:18:55 PM	16592
Uranium	0.014	0.0010		mg/L	1	12/3/2014 4:08:15 PM	16592
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 1:59:25 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Aniline	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 2:14:18 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Bis(2-ethylhexyl)phthalate	11	10	B	µg/L	1	11/25/2014 2:14:18 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:30:00 PM

Lab ID: 1411835-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 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	11/25/2014 2:14:18 PM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 2:14:18 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 2:14:18 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 2:14:18 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
1-Methylnaphthalene	110	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2-Methylnaphthalene	33	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Naphthalene	54	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 2:14:18 PM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:30:00 PM

Lab ID: 1411835-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Pyrene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 2:14:18 PM	16507
Surr: 2-Fluorophenol	70.5	17.6-104		%REC	1	11/25/2014 2:14:18 PM	16507
Surr: Phenol-d5	63.3	17.7-89.9		%REC	1	11/25/2014 2:14:18 PM	16507
Surr: 2,4,6-Tribromophenol	85.3	16.3-122		%REC	1	11/25/2014 2:14:18 PM	16507
Surr: Nitrobenzene-d5	87.2	45.3-117		%REC	1	11/25/2014 2:14:18 PM	16507
Surr: 2-Fluorobiphenyl	79.3	43-113		%REC	1	11/25/2014 2:14:18 PM	16507
Surr: 4-Terphenyl-d14	84.9	47.6-122		%REC	1	11/25/2014 2:14:18 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	2300	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Toluene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Ethylbenzene	740	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Methyl tert-butyl ether (MTBE)	9700	500		µg/L	500	11/25/2014 11:30:40 PM	R22801
1,2,4-Trimethylbenzene	830	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,3,5-Trimethylbenzene	110	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Naphthalene	580	100		µg/L	50	11/24/2014 6:11:31 PM	R22767
1-Methylnaphthalene	410	200		µg/L	50	11/24/2014 6:11:31 PM	R22767
2-Methylnaphthalene	540	200		µg/L	50	11/24/2014 6:11:31 PM	R22767
Acetone	ND	500		µg/L	50	11/24/2014 6:11:31 PM	R22767
Bromobenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Bromodichloromethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Bromoform	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Bromomethane	ND	150		µg/L	50	11/24/2014 6:11:31 PM	R22767
2-Butanone	ND	500		µg/L	50	11/24/2014 6:11:31 PM	R22767
Carbon disulfide	ND	500		µg/L	50	11/24/2014 6:11:31 PM	R22767
Carbon Tetrachloride	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Chlorobenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Chloroethane	ND	100		µg/L	50	11/24/2014 6:11:31 PM	R22767
Chloroform	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Chloromethane	ND	150		µg/L	50	11/24/2014 6:11:31 PM	R22767
2-Chlorotoluene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
4-Chlorotoluene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
cis-1,2-DCE	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:30:00 PM

Lab ID: 1411835-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/24/2014 6:11:31 PM	R22767
Dibromochloromethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Dibromomethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,3-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,4-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Dichlorodifluoromethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,1-Dichloroethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,1-Dichloroethene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2-Dichloropropane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,3-Dichloropropane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
2,2-Dichloropropane	ND	100		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,1-Dichloropropene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Hexachlorobutadiene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
2-Hexanone	ND	500		µg/L	50	11/24/2014 6:11:31 PM	R22767
Isopropylbenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
4-Isopropyltoluene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
4-Methyl-2-pentanone	ND	500		µg/L	50	11/24/2014 6:11:31 PM	R22767
Methylene Chloride	ND	150		µg/L	50	11/24/2014 6:11:31 PM	R22767
n-Butylbenzene	ND	150		µg/L	50	11/24/2014 6:11:31 PM	R22767
n-Propylbenzene	110	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
sec-Butylbenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Styrene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
tert-Butylbenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/24/2014 6:11:31 PM	R22767
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
trans-1,2-DCE	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,1,1-Trichloroethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,1,2-Trichloroethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Trichloroethene (TCE)	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Trichlorofluoromethane	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
1,2,3-Trichloropropane	ND	100		µg/L	50	11/24/2014 6:11:31 PM	R22767
Vinyl chloride	ND	50		µg/L	50	11/24/2014 6:11:31 PM	R22767
Xylenes, Total	360	75		µg/L	50	11/24/2014 6:11:31 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 **1411835**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-19

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 2:30:00 PM

Lab ID: 1411835-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	50	11/24/2014 6:11:31 PM	R22767
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	50	11/24/2014 6:11:31 PM	R22767
Surr: Dibromofluoromethane	96.0	70-130		%REC	50	11/24/2014 6:11:31 PM	R22767
Surr: Toluene-d8	101	70-130		%REC	50	11/24/2014 6:11:31 PM	R22767

Refer to the QC Summary report and 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 62
	E	Value 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 greater than 2.	
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-20

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 10:15:00 AM

Lab ID: 1411835-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	24	1.0		mg/L	1	11/21/2014 2:59:45 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 2:59:45 AM	16493
Surr: DNOP	84.5	59-141		%REC	1	11/21/2014 2:59:45 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	45	5.0		mg/L	100	11/22/2014 3:07:34 AM	R22716
Surr: BFB	89.7	80-120		%REC	100	11/22/2014 3:07:34 AM	R22716
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.87	0.50		mg/L	5	11/19/2014 10:26:53 PM	R22657
Chloride	82	2.5		mg/L	5	11/19/2014 10:26:53 PM	R22657
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/19/2014 10:26:53 PM	R22657
Bromide	ND	0.50		mg/L	5	11/19/2014 10:26:53 PM	R22657
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/19/2014 10:26:53 PM	R22657
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/19/2014 10:26:53 PM	R22657
Sulfate	16	2.5		mg/L	5	11/19/2014 10:26:53 PM	R22657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Calcium	110	5.0		mg/L	5	12/1/2014 5:27:42 PM	R22857
Magnesium	20	1.0		mg/L	1	12/1/2014 3:54:35 PM	R22857
Potassium	22	1.0		mg/L	1	12/1/2014 3:54:35 PM	R22857
Sodium	100	5.0		mg/L	5	12/1/2014 5:27:42 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	4.5	0.020	*	mg/L	10	12/1/2014 5:07:46 PM	16592
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:12:12 PM	16592
Chromium	0.022	0.0060		mg/L	1	12/1/2014 4:12:12 PM	16592
Copper	0.12	0.0060		mg/L	1	12/1/2014 4:12:12 PM	16592
Iron	45	2.0	*	mg/L	100	12/1/2014 5:09:30 PM	16592
Manganese	4.9	0.020	*	mg/L	10	12/1/2014 5:07:46 PM	16592
Silver	ND	0.0050		mg/L	1	12/1/2014 4:12:12 PM	16592
Zinc	0.19	0.010		mg/L	1	12/1/2014 4:12:12 PM	16592
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.017	0.0050	*	mg/L	5	12/3/2014 6:22:00 PM	16592
Lead	0.048	0.0010	*	mg/L	1	12/3/2014 4:11:20 PM	16592
Selenium	ND	0.0050		mg/L	5	12/3/2014 6:22:00 PM	16592
Uranium	0.0066	0.0010		mg/L	1	12/3/2014 4:11:20 PM	16592
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	0.00028	0.00020		mg/L	1	12/2/2014 2:01:14 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-20

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 10:15:00 AM

Lab ID: 1411835-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Aniline	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 2:40:51 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Bis(2-ethylhexyl)phthalate	14	10	B	µg/L	1	11/25/2014 2:40:51 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 2:40:51 PM	16507
2,4-Dimethylphenol	610	100		µg/L	10	12/2/2014 12:30:33 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 2:40:51 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 2:40:51 PM	16507

Refer to the QC Summary report and 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 26 of 62
	E	Value 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 greater than 2.	
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-20

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 10:15:00 AM

Lab ID: 1411835-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
1-Methylnaphthalene	110	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2-Methylnaphthalene	66	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2-Methylphenol	120	10		µg/L	1	11/25/2014 2:40:51 PM	16507
3+4-Methylphenol	51	10		µg/L	1	11/25/2014 2:40:51 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Naphthalene	100	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 2:40:51 PM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Phenol	37	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Pyrene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 2:40:51 PM	16507
Surr: 2-Fluorophenol	21.6	17.6-104		%REC	1	11/25/2014 2:40:51 PM	16507
Surr: Phenol-d5	57.8	17.7-89.9		%REC	1	11/25/2014 2:40:51 PM	16507
Surr: 2,4,6-Tribromophenol	90.9	16.3-122		%REC	1	11/25/2014 2:40:51 PM	16507
Surr: Nitrobenzene-d5	78.5	45.3-117		%REC	1	11/25/2014 2:40:51 PM	16507
Surr: 2-Fluorobiphenyl	72.5	43-113		%REC	1	11/25/2014 2:40:51 PM	16507
Surr: 4-Terphenyl-d14	68.5	47.6-122		%REC	1	11/25/2014 2:40:51 PM	16507

EPA METHOD 8260B: VOLATILES

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-20

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 10:15:00 AM

Lab ID: 1411835-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Benzene	4400	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Toluene	1300	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Ethylbenzene	480	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Methyl tert-butyl ether (MTBE)	83	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2,4-Trimethylbenzene	1800	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,3,5-Trimethylbenzene	530	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Naphthalene	160	100		µg/L	50	11/24/2014 7:31:42 PM	R22767
1-Methylnaphthalene	ND	200		µg/L	50	11/24/2014 7:31:42 PM	R22767
2-Methylnaphthalene	ND	200		µg/L	50	11/24/2014 7:31:42 PM	R22767
Acetone	ND	500		µg/L	50	11/24/2014 7:31:42 PM	R22767
Bromobenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Bromodichloromethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Bromoform	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Bromomethane	ND	150		µg/L	50	11/24/2014 7:31:42 PM	R22767
2-Butanone	ND	500		µg/L	50	11/24/2014 7:31:42 PM	R22767
Carbon disulfide	ND	500		µg/L	50	11/24/2014 7:31:42 PM	R22767
Carbon Tetrachloride	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Chlorobenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Chloroethane	ND	100		µg/L	50	11/24/2014 7:31:42 PM	R22767
Chloroform	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Chloromethane	ND	150		µg/L	50	11/24/2014 7:31:42 PM	R22767
2-Chlorotoluene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
4-Chlorotoluene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
cis-1,2-DCE	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/24/2014 7:31:42 PM	R22767
Dibromochloromethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Dibromomethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,3-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,4-Dichlorobenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Dichlorodifluoromethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,1-Dichloroethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,1-Dichloroethene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2-Dichloropropane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,3-Dichloropropane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
2,2-Dichloropropane	ND	100		µg/L	50	11/24/2014 7:31:42 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-20

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 10:15:00 AM

Lab ID: 1411835-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
1,1-Dichloropropene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Hexachlorobutadiene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
2-Hexanone	ND	500		µg/L	50	11/24/2014 7:31:42 PM	R22767
Isopropylbenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
4-Isopropyltoluene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
4-Methyl-2-pentanone	ND	500		µg/L	50	11/24/2014 7:31:42 PM	R22767
Methylene Chloride	ND	150		µg/L	50	11/24/2014 7:31:42 PM	R22767
n-Butylbenzene	ND	150		µg/L	50	11/24/2014 7:31:42 PM	R22767
n-Propylbenzene	120	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
sec-Butylbenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Styrene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
tert-Butylbenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/24/2014 7:31:42 PM	R22767
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
trans-1,2-DCE	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,1,1-Trichloroethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,1,2-Trichloroethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Trichloroethene (TCE)	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Trichlorofluoromethane	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
1,2,3-Trichloropropane	ND	100		µg/L	50	11/24/2014 7:31:42 PM	R22767
Vinyl chloride	ND	50		µg/L	50	11/24/2014 7:31:42 PM	R22767
Xylenes, Total	10000	75		µg/L	50	11/24/2014 7:31:42 PM	R22767
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	50	11/24/2014 7:31:42 PM	R22767
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	50	11/24/2014 7:31:42 PM	R22767
Surr: Dibromofluoromethane	88.8	70-130		%REC	50	11/24/2014 7:31:42 PM	R22767
Surr: Toluene-d8	99.3	70-130		%REC	50	11/24/2014 7:31:42 PM	R22767

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	E Value 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1NW

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 1:15:00 PM

Lab ID: 1411835-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/21/2014 3:20:58 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 3:20:58 AM	16493
Surr: DNOP	95.7	59-141		%REC	1	11/21/2014 3:20:58 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/22/2014 3:34:53 AM	R22716
Surr: BFB	89.5	80-120		%REC	1	11/22/2014 3:34:53 AM	R22716
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.29	0.10		mg/L	1	11/19/2014 11:16:32 PM	R22657
Chloride	1800	100		mg/L	200	12/1/2014 10:05:02 PM	R22875
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/19/2014 11:53:46 PM	R22657
Bromide	2.8	0.10		mg/L	1	11/19/2014 11:16:32 PM	R22657
Nitrogen, Nitrate (As N)	18	2.0	*	mg/L	20	11/19/2014 11:53:46 PM	R22657
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/19/2014 11:16:32 PM	R22657
Sulfate	120	10		mg/L	20	11/19/2014 11:53:46 PM	R22657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.12	0.0020		mg/L	1	12/1/2014 3:56:06 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 3:56:06 PM	R22857
Calcium	64	1.0		mg/L	1	12/1/2014 3:56:06 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 3:56:06 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 3:56:06 PM	R22857
Iron	0.026	0.020		mg/L	1	12/1/2014 3:56:06 PM	R22857
Magnesium	8.5	1.0		mg/L	1	12/1/2014 3:56:06 PM	R22857
Manganese	0.028	0.0020		mg/L	1	12/1/2014 3:56:06 PM	R22857
Potassium	6.0	1.0		mg/L	1	12/1/2014 3:56:06 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 3:56:06 PM	R22857
Sodium	1200	20		mg/L	20	12/1/2014 5:29:23 PM	R22857
Zinc	0.058	0.010		mg/L	1	12/1/2014 3:56:06 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	12/1/2014 4:13:55 PM	16592
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:13:55 PM	16592
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:13:55 PM	16592
Copper	ND	0.0060		mg/L	1	12/1/2014 4:13:55 PM	16592
Iron	0.15	0.020		mg/L	1	12/1/2014 4:13:55 PM	16592
Manganese	0.032	0.0020		mg/L	1	12/1/2014 4:13:55 PM	16592
Silver	ND	0.0050		mg/L	1	12/1/2014 4:13:55 PM	16592
Zinc	0.032	0.010		mg/L	1	12/1/2014 4:13:55 PM	16592

EPA 200.8: DISSOLVED METALSAnalyst: **DBD**

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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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1NW

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 1:15:00 PM

Lab ID: 1411835-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/4/2014 2:40:20 PM	R22933
Lead	ND	0.0010		mg/L	1	12/4/2014 12:58:39 PM	R22933
Selenium	0.023	0.010		mg/L	10	12/4/2014 2:40:20 PM	R22933
Uranium	0.026	0.0010		mg/L	1	12/4/2014 12:58:39 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/3/2014 6:25:06 PM	16592
Lead	ND	0.0010		mg/L	1	12/3/2014 4:14:25 PM	16592
Selenium	0.024	0.010		mg/L	10	12/3/2014 6:25:06 PM	16592
Uranium	0.030	0.0010		mg/L	1	12/3/2014 4:14:25 PM	16592
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:03:02 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Aniline	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 3:07:24 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Bis(2-ethylhexyl)phthalate	11	10	B	µg/L	1	11/25/2014 3:07:24 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1NW

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 1:15:00 PM

Lab ID: 1411835-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 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	11/25/2014 3:07:24 PM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 3:07:24 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 3:07:24 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 3:07:24 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Naphthalene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 3:07:24 PM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507

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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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1NW

Project: 2014 4th QTR MKTF WELLS/STP-1N

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Lab ID: 1411835-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Pyrene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 3:07:24 PM	16507
Surr: 2-Fluorophenol	77.4	17.6-104		%REC	1	11/25/2014 3:07:24 PM	16507
Surr: Phenol-d5	67.2	17.7-89.9		%REC	1	11/25/2014 3:07:24 PM	16507
Surr: 2,4,6-Tribromophenol	91.1	16.3-122		%REC	1	11/25/2014 3:07:24 PM	16507
Surr: Nitrobenzene-d5	89.9	45.3-117		%REC	1	11/25/2014 3:07:24 PM	16507
Surr: 2-Fluorobiphenyl	86.6	43-113		%REC	1	11/25/2014 3:07:24 PM	16507
Surr: 4-Terphenyl-d14	93.8	47.6-122		%REC	1	11/25/2014 3:07:24 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Toluene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Naphthalene	ND	2.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Acetone	ND	10		µg/L	1	11/24/2014 7:58:26 PM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Bromoform	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Bromomethane	ND	3.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
2-Butanone	ND	10		µg/L	1	11/24/2014 7:58:26 PM	R22767
Carbon disulfide	ND	10		µg/L	1	11/24/2014 7:58:26 PM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Chloroethane	ND	2.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Chloroform	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Chloromethane	ND	3.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
cis-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1NW

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 1:15:00 PM

Lab ID: 1411835-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,1-Dichloroethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,1-Dichloroethene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,1-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
2-Hexanone	ND	10		µg/L	1	11/24/2014 7:58:26 PM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/24/2014 7:58:26 PM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Styrene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Vinyl chloride	ND	1.0		µg/L	1	11/24/2014 7:58:26 PM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/24/2014 7:58:26 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1NW

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 1:15:00 PM

Lab ID: 1411835-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%REC	1	11/24/2014 7:58:26 PM	R22767
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1	11/24/2014 7:58:26 PM	R22767
Surr: Dibromofluoromethane	102	70-130		%REC	1	11/24/2014 7:58:26 PM	R22767
Surr: Toluene-d8	110	70-130		%REC	1	11/24/2014 7:58:26 PM	R22767

Refer to the QC Summary report and 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 35 of 62
	E	Value 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 greater than 2.	
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-11-18-14

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 8:00:00 AM

Lab ID: 1411835-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Aniline	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 3:34:34 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Bis(2-ethylhexyl)phthalate	12	10	B	µg/L	1	11/25/2014 3:34:34 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 3:34:34 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 3:34:34 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 3:34:34 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-11-18-14

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 8:00:00 AM

Lab ID: 1411835-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
1-Methylnaphthalene	120	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2-Methylnaphthalene	36	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Naphthalene	57	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 3:34:34 PM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Phenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Pyrene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 3:34:34 PM	16507
Surr: 2-Fluorophenol	80.1	17.6-104		%REC	1	11/25/2014 3:34:34 PM	16507
Surr: Phenol-d5	70.7	17.7-89.9		%REC	1	11/25/2014 3:34:34 PM	16507
Surr: 2,4,6-Tribromophenol	102	16.3-122		%REC	1	11/25/2014 3:34:34 PM	16507
Surr: Nitrobenzene-d5	96.4	45.3-117		%REC	1	11/25/2014 3:34:34 PM	16507
Surr: 2-Fluorobiphenyl	92.6	43-113		%REC	1	11/25/2014 3:34:34 PM	16507
Surr: 4-Terphenyl-d14	89.8	47.6-122		%REC	1	11/25/2014 3:34:34 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 8:00:00 AM

Lab ID: 1411835-008

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Toluene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Naphthalene	ND	2.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Acetone	ND	10		µg/L	1	11/24/2014 8:25:11 PM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Bromoform	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Bromomethane	ND	3.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
2-Butanone	ND	10		µg/L	1	11/24/2014 8:25:11 PM	R22767
Carbon disulfide	ND	10		µg/L	1	11/24/2014 8:25:11 PM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Chloroethane	ND	2.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Chloroform	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Chloromethane	ND	3.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
cis-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,1-Dichloroethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,1-Dichloroethene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/24/2014 8:25:11 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date: 11/18/2014 8:00:00 AM

Lab ID: 1411835-008

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
1,1-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
2-Hexanone	ND	10		µg/L	1	11/24/2014 8:25:11 PM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/24/2014 8:25:11 PM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Styrene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Vinyl chloride	ND	1.0		µg/L	1	11/24/2014 8:25:11 PM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/24/2014 8:25:11 PM	R22767
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%REC	1	11/24/2014 8:25:11 PM	R22767
Surr: 4-Bromofluorobenzene	118	70-130		%REC	1	11/24/2014 8:25:11 PM	R22767
Surr: Dibromofluoromethane	93.1	70-130		%REC	1	11/24/2014 8:25:11 PM	R22767
Surr: Toluene-d8	109	70-130		%REC	1	11/24/2014 8:25:11 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date:

Lab ID: 1411835-009

Matrix: TRIP BLANK

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Toluene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Naphthalene	ND	2.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Acetone	ND	10		µg/L	1	11/24/2014 1:43:43 PM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Bromoform	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Bromomethane	ND	3.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
2-Butanone	ND	10		µg/L	1	11/24/2014 1:43:43 PM	R22767
Carbon disulfide	ND	10		µg/L	1	11/24/2014 1:43:43 PM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Chloroethane	ND	2.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Chloroform	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Chloromethane	ND	3.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
cis-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,1-Dichloroethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,1-Dichloroethene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/24/2014 1:43:43 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411835

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 4th QTR MKTF WELLS/STP-1N

Collection Date:

Lab ID: 1411835-009

Matrix: TRIP BLANK

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
2-Hexanone	ND	10		µg/L	1	11/24/2014 1:43:43 PM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/24/2014 1:43:43 PM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Styrene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Vinyl chloride	ND	1.0		µg/L	1	11/24/2014 1:43:43 PM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/24/2014 1:43:43 PM	R22767
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	11/24/2014 1:43:43 PM	R22767
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1	11/24/2014 1:43:43 PM	R22767
Surr: Dibromofluoromethane	105	70-130		%REC	1	11/24/2014 1:43:43 PM	R22767
Surr: Toluene-d8	109	70-130		%REC	1	11/24/2014 1:43:43 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R22857		RunNo: 22857							
Prep Date:	Analysis Date: 12/1/2014		SeqNo: 674626		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: R22857		RunNo: 22857							
Prep Date:	Analysis Date: 12/1/2014		SeqNo: 674627		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	0.47	0.0020	0.5000	0	94.6	85	115			
Calcium	50	1.0	50.00	0	99.2	85	115			
Chromium	0.47	0.0060	0.5000	0	93.8	85	115			
Copper	0.46	0.0060	0.5000	0	92.3	85	115			
Iron	0.47	0.020	0.5000	0	93.2	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.46	0.0020	0.5000	0	91.1	85	115			
Potassium	48	1.0	50.00	0	96.9	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Sodium	49	1.0	50.00	0	98.8	85	115			
Zinc	0.47	0.010	0.5000	0	94.6	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R22857		RunNo: 22857							
Prep Date:	Analysis Date: 12/1/2014		SeqNo: 674628		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								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R22857		RunNo: 22857							
Prep Date:	Analysis Date: 12/1/2014		SeqNo: 674628		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: R22857		RunNo: 22857							
Prep Date:	Analysis Date: 12/1/2014		SeqNo: 674629		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	0.49	0.0020	0.5000	0	97.6	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.48	0.020	0.5000	0	96.9	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.47	0.0020	0.5000	0	93.9	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Sodium	49	1.0	50.00	0	98.9	85	115			
Zinc	0.49	0.010	0.5000	0	97.3	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	MB-16592		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16592		RunNo: 22823					
Prep Date:	11/26/2014		Analysis Date: 11/26/2014		SeqNo: 674320		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-16592		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16592		RunNo: 22823					
Prep Date:	11/26/2014		Analysis Date: 11/26/2014		SeqNo: 674321		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	0.50	0.0020	0.5000	0	99.5	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Copper	0.49	0.0060	0.5000	0	98.7	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Manganese	0.48	0.0020	0.5000	0	97.0	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.50	0.010	0.5000	0	100	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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R22933			RunNo: 22933						
Prep Date:	Analysis Date: 12/4/2014			SeqNo: 677289			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	0.024	0.0010	0.02500	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.025	0.0010	0.02500	0	99.9	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R22933			RunNo: 22933						
Prep Date:	Analysis Date: 12/4/2014			SeqNo: 677290			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	0.024	0.0010	0.02500	0	96.7	85	115			
Selenium	0.024	0.0010	0.02500	0	95.5	85	115			
Uranium	0.023	0.0010	0.02500	0	92.2	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R22933			RunNo: 22933						
Prep Date:	Analysis Date: 12/4/2014			SeqNo: 677291			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R22933			RunNo: 22933						
Prep Date:	Analysis Date: 12/4/2014			SeqNo: 677292			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	1411835-006GMSDL		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	STP-1NW		Batch ID:	16592		RunNo:	22904				
Prep Date:	11/26/2014		Analysis Date:	12/3/2014		SeqNo:	676752		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.027	0.0010	0.02500	0.0006461	104	70	130	1.53	20		
Uranium	0.056	0.0010	0.02500	0.02970	107	70	130	2.76	20	E	

Sample ID	1411835-006GMSLL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	STP-1NW		Batch ID:	16592		RunNo:	22904				
Prep Date:	11/26/2014		Analysis Date:	12/3/2014		SeqNo:	676753		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.027	0.0010	0.02500	0.0006461	106	70	130				
Uranium	0.058	0.0010	0.02500	0.02970	113	70	130			E	

Sample ID	LLLCS-16592		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 16592		RunNo: 22904					
Prep Date:	11/26/2014		Analysis Date: 12/3/2014		SeqNo: 676773		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			
Lead	0.024	0.0010	0.02500	0	94.3	85	115			
Selenium	0.023	0.0010	0.02500	0	92.8	85	115			
Uranium	0.024	0.0010	0.02500	0	97.9	85	115			

Sample ID	MB-16592		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 16592		RunNo: 22904					
Prep Date:	11/26/2014		Analysis Date: 12/3/2014		SeqNo: 676775		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	MB-16625	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	16625	RunNo:	22882					
Prep Date:	12/2/2014	Analysis Date:	12/2/2014	SeqNo:	675569	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-16625	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	16625	RunNo:	22882					
Prep Date:	12/2/2014	Analysis Date:	12/2/2014	SeqNo:	675570	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	1411835-006EMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	STP-1NW		Batch ID: R22657		RunNo: 22657					
Prep Date:			Analysis Date: 11/19/2014		SeqNo: 668270		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2920	72.3	66.1	113			
Bromide	4.8	0.10	2.500	2.776	81.5	82.5	103			S
Phosphorus, Orthophosphate (As P	4.1	0.50	5.000	0	82.6	69	109			

Sample ID	1411835-006EMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	STP-1NW		Batch ID: R22657		RunNo: 22657					
Prep Date:			Analysis Date: 11/19/2014		SeqNo: 668271		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2920	71.7	66.1	113	0.429	20	
Bromide	4.8	0.10	2.500	2.776	81.2	82.5	103	0.150	20	S
Phosphorus, Orthophosphate (As P	4.2	0.50	5.000	0	83.4	69	109	1.01	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R22875			RunNo: 22875					
Prep Date:		Analysis Date: 12/1/2014			SeqNo: 675391		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: R22875		RunNo: 22875					
Prep Date:			Analysis Date: 12/1/2014		SeqNo: 675392		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	97.0	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	MB-16493		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16493		RunNo: 22660					
Prep Date:	11/20/2014		Analysis Date: 11/21/2014		SeqNo: 669374		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	0.87		1.000		87.2	59	141			

Sample ID	LCS-16493		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16493		RunNo: 22660					
Prep Date:	11/20/2014		Analysis Date: 11/21/2014		SeqNo: 669375		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	119	69.7	142			
Surr: DNOP	0.47		0.5000		93.2	59	141			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID 5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBW	Batch ID: R22716			RunNo: 22716						
Prep Date:	Analysis Date: 11/21/2014			SeqNo: 670112		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		92.8	80	120			

Sample ID 2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSW	Batch ID: R22716			RunNo: 22716						
Prep Date:	Analysis Date: 11/21/2014			SeqNo: 670113		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	89.6	80	120			
Surr: BFB	19		20.00		94.0	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671611		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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671611		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		94.1	70	130			
Surr: 4-Bromofluorobenzene	14		10.00		141	70	130			S
Surr: Dibromofluoromethane	8.1		10.00		80.9	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671614		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	19	1.0	20.00	0	94.6	80	120			
Chlorobenzene	18	1.0	20.00	0	91.8	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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R22767			RunNo: 22767						
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671614		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	97.0	82.6	131			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		120	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.4	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID 1411835-001a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-16	Batch ID: R22767			RunNo: 22767						
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671626		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20000	50	1000	19490	79.6	70	130			E
Toluene	2200	50	1000	1166	102	70	130			
Chlorobenzene	1000	50	1000	0	101	70	130			
1,1-Dichloroethene	890	50	1000	0	88.8	70	130			
Trichloroethene (TCE)	880	50	1000	0	87.7	70	130			
Surr: 1,2-Dichloroethane-d4	470		500.0		93.2	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		97.1	70	130			
Surr: Dibromofluoromethane	460		500.0		91.4	70	130			
Surr: Toluene-d8	510		500.0		102	70	130			

Sample ID 1411835-001a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-16	Batch ID: R22767			RunNo: 22767						
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671627		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21000	50	1000	19490	126	70	130	2.25	20	E
Toluene	2100	50	1000	1166	91.3	70	130	5.18	20	
Chlorobenzene	960	50	1000	0	96.2	70	130	4.44	20	
1,1-Dichloroethene	890	50	1000	0	89.0	70	130	0.325	20	
Trichloroethene (TCE)	900	50	1000	0	90.1	70	130	2.64	20	
Surr: 1,2-Dichloroethane-d4	500		500.0		99.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	480		500.0		95.9	70	130	0	0	
Surr: Dibromofluoromethane	460		500.0		91.7	70	130	0	0	
Surr: Toluene-d8	500		500.0		99.2	70	130	0	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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R22767			RunNo: 22767						
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671653		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	22	1.0	20.00	0	108	80	120			
Chlorobenzene	19	1.0	20.00	0	97.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.0	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	93.7	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID b5	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22767			RunNo: 22767						
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671935		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.	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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID b5	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22767			RunNo: 22767						
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671935		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.
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID b5	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22767			RunNo: 22767						
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671935		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	9.4		10.00		94.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.4	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			

Sample ID 5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22801			RunNo: 22801						
Prep Date:	Analysis Date: 11/25/2014			SeqNo: 672809		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								

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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22801			RunNo: 22801					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672809	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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		91.9	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		124	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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22801			RunNo: 22801					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672809		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22801			RunNo: 22801					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672811		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	21	1.0	20.00	0	107	80	120			
Chlorobenzene	19	1.0	20.00	0	93.7	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.7	82.6	131			
Trichloroethene (TCE)	18	1.0	20.00	0	92.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.6	70	130			
Surr: Toluene-d8	10		10.00		103	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	mb-16507	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	16507	RunNo:	22768					
Prep Date:	11/21/2014	Analysis Date:	11/24/2014	SeqNo:	671719	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	14	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.	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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	mb-16507	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	16507	RunNo:	22768					
Prep Date:	11/21/2014	Analysis Date:	11/24/2014	SeqNo:	671719	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		78.3	17.6	104			
Surr: Phenol-d5	160		200.0		81.6	17.7	89.9			
Surr: 2,4,6-Tribromophenol	180		200.0		89.3	16.3	122			
Surr: Nitrobenzene-d5	80		100.0		80.5	45.3	117			
Surr: 2-Fluorobiphenyl	80		100.0		79.6	43	113			
Surr: 4-Terphenyl-d14	87		100.0		87.4	47.6	122			

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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	lcs-16507		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSW		Batch ID: 16507			RunNo: 22768				
Prep Date:	11/21/2014		Analysis Date: 11/24/2014			SeqNo: 671720		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	78.9	47.9	114			
4-Chloro-3-methylphenol	180	10	200.0	0	89.2	51.7	122			
2-Chlorophenol	150	10	200.0	0	77.3	40.7	113			
1,4-Dichlorobenzene	66	10	100.0	0	66.0	39.6	99.9			
2,4-Dinitrotoluene	62	10	100.0	0	61.8	40.8	113			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	51.2	111			
4-Nitrophenol	160	10	200.0	0	80.2	15.7	86.9			
Pentachlorophenol	140	20	200.0	0	68.7	21.6	104			
Phenol	170	10	200.0	0	83.3	28.6	71.7			S
Pyrene	81	10	100.0	0	81.0	54.2	128			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.1	40.9	101			
Surr: 2-Fluorophenol	140		200.0		70.0	17.6	104			
Surr: Phenol-d5	150		200.0		75.8	17.7	89.9			
Surr: 2,4,6-Tribromophenol	180		200.0		88.2	16.3	122			
Surr: Nitrobenzene-d5	80		100.0		79.8	45.3	117			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	43	113			
Surr: 4-Terphenyl-d14	90		100.0		89.5	47.6	122			

Sample ID	lcsd-16507		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16507		RunNo: 22768					
Prep Date:	11/21/2014		Analysis Date: 11/24/2014		SeqNo: 671721		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	90	10	100.0	0	89.8	47.9	114	13.0	27.2	
4-Chloro-3-methylphenol	190	10	200.0	0	95.3	51.7	122	6.67	25.9	
2-Chlorophenol	180	10	200.0	0	90.7	40.7	113	15.9	22.5	
1,4-Dichlorobenzene	81	10	100.0	0	80.5	39.6	99.9	19.9	24.6	
2,4-Dinitrotoluene	79	10	100.0	0	79.1	40.8	113	24.5	25.3	
N-Nitrosodi-n-propylamine	92	10	100.0	0	91.5	51.2	111	15.7	23.6	
4-Nitrophenol	180	10	200.0	0	91.4	15.7	86.9	13.1	34.7	S
Pentachlorophenol	160	20	200.0	0	78.2	21.6	104	12.9	32.8	
Phenol	190	10	200.0	0	96.4	28.6	71.7	14.5	25.5	S
Pyrene	93	10	100.0	0	93.4	54.2	128	14.3	31.4	
1,2,4-Trichlorobenzene	80	10	100.0	0	80.1	40.9	101	11.9	25.9	
Surr: 2-Fluorophenol	160		200.0		79.0	17.6	104	0	0	
Surr: Phenol-d5	170		200.0		83.5	17.7	89.9	0	0	
Surr: 2,4,6-Tribromophenol	190		200.0		93.6	16.3	122	0	0	
Surr: Nitrobenzene-d5	81		100.0		81.2	45.3	117	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	43	113	0	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 greater than 2.
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#: 1411835

11-Dec-14

Client: Western Refining Southwest, Gallup
Project: 2014 4th QTR MKTF WELLS/STP-1NW

Sample ID	lcsd-16507		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16507		RunNo: 22768					
Prep Date:	11/21/2014		Analysis Date: 11/24/2014		SeqNo: 671721		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	93		100.0		93.3	47.6	122	0	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 greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411835

RcptNo: 1

Received by/date:

CS 11/19/14

Logged By: Celina Sessa

11/19/2014 4:00:00 PM

Celina Sessa

Completed By: Ashley Gallegos

11/20/2014 9:43:26 AM

Ag

Reviewed By:

mf CS 11/20/14

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 ☒ 11/20/14 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
(≥ 2 or >12 unless noted)
Adjusted? yes
Checked by: mf 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 diss. metals analysis, poured off from the amber jar + filtered into a 125mL bottle, added 0.4mL HNO₃ for acceptable pH (for -005F). For Dissolved Metals:

18. Cooler Information

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

Added 0.4 mL HNO₃ to 002F, 003F, 004F for acceptable pH

Held in login for 24hrs. after preservation. For Total Metals Added 1mL HNO₃ to 001G for acceptable pH. Held in login

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

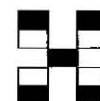
Project Name:
2014 4th QTR MKTF WELLS/STP-1NW
(MKTF 16-20 & STP-1NW)

Project Manager:
C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°C



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8260-MTBE	8015B EXTENDED	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	Air Bubbles (Y or N)
11/18/2014	955	AQUEOUS	MKTF-16	MISC	HCL	-001	X	X	X	X	X	X	
11/18/2014	1415	AQUEOUS	MKTF-17	MISC	HCL	-002	X	X	X	X	X	X	
11/18/2014	1615	AQUEOUS	MKTF-18	MISC	HCL	-003	X	X	X	X	X	X	
11/18/2014	1430	AQUEOUS	MKTF-19	MISC	HCL	-004	X	X	X	X	X	X	
11/18/2014	1015	AQUEOUS	MKTF-20	MISC	HCL	-005	X	X	X	X		X	
				MISC	HCL	-01							
11/18/2014	1315	AQUEOUS	STP-1NW	MISC	HCL	-006	X	X	X	X	X	X	
11/18/2014		AQUEOUS	BD-MKTF-11-18-14	1L AMBER	NONE	-007			X				
11/18/2014	0800	AQUEOUS	FIELD BLANK	3-40ML VOA	HCL	-008	X						
11/18/2014	0800	AQUEOUS	TRIP BLANK	3-40ML VOA	HCL	-009	X						
Date: 11/19/2014	Time: 11:30	Relinquished by: [Signature]	Received by: [Signature]	Date: 11/19/14	Time: 2:00	Remarks: MKTF 20 - No sample for the Filtered WQCC Metals (Not enough water)							
Date: 11/19/14	Time: 4:00	Relinquished by: [Signature]	Received by: [Signature]	Date: 11/19/14	Time: 16:00								

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 11, 2014

Cheryl Johnson

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

RE: 2014 4th QTR MKTF Wells

OrderNo.: 1411861

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/19/2014 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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:00:00 PM

Lab ID: 1411861-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	1.6	1.0		mg/L	1	11/21/2014 3:42:20 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 3:42:20 AM	16493
Surr: DNOP	92.8	59-141		%REC	1	11/21/2014 3:42:20 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.8	0.50		mg/L	10	11/24/2014 11:48:30 PM	R22770
Surr: BFB	96.1	80-120		%REC	10	11/24/2014 11:48:30 PM	R22770
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.38	0.10		mg/L	1	11/21/2014 5:49:14 PM	R22742
Chloride	96	10		mg/L	20	11/21/2014 6:01:38 PM	R22742
Bromide	ND	0.10		mg/L	1	11/21/2014 5:49:14 PM	R22742
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/21/2014 5:49:14 PM	R22742
Sulfate	19	0.50		mg/L	1	11/21/2014 5:49:14 PM	R22742
Nitrate+Nitrite as N	7.1	1.0		mg/L	5	12/1/2014 11:43:03 AM	R22874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.78	0.0020		mg/L	1	12/1/2014 4:21:13 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:21:13 PM	R22857
Calcium	110	10		mg/L	10	12/1/2014 5:31:14 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:21:13 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 4:21:13 PM	R22857
Iron	6.8	0.20	*	mg/L	10	12/1/2014 5:31:14 PM	R22857
Magnesium	23	1.0		mg/L	1	12/1/2014 4:21:13 PM	R22857
Manganese	2.2	0.020	*	mg/L	10	12/1/2014 5:31:14 PM	R22857
Potassium	1.4	1.0		mg/L	1	12/1/2014 4:21:13 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 4:21:13 PM	R22857
Sodium	260	10		mg/L	10	12/1/2014 5:31:14 PM	R22857
Zinc	0.024	0.010		mg/L	1	12/1/2014 4:21:13 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.1	0.010		mg/L	5	12/3/2014 1:31:16 PM	16624
Cadmium	ND	0.0020		mg/L	1	12/3/2014 1:07:46 PM	16624
Chromium	ND	0.0060		mg/L	1	12/3/2014 1:07:46 PM	16624
Copper	ND	0.0060		mg/L	1	12/3/2014 1:07:46 PM	16624
Iron	15	1.0	*	mg/L	50	12/3/2014 1:32:59 PM	16624
Manganese	3.0	0.010	*	mg/L	5	12/3/2014 1:31:16 PM	16624
Silver	ND	0.0050		mg/L	1	12/3/2014 1:07:46 PM	16624
Zinc	0.025	0.010		mg/L	1	12/3/2014 1:07:46 PM	16624
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/4/2014 2:53:57 PM	R22933

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:00:00 PM

Lab ID: 1411861-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	0.0010	0.0010		mg/L	1	12/4/2014 1:40:32 PM	R22933
Selenium	ND	0.0050		mg/L	5	12/4/2014 2:53:57 PM	R22933
Uranium	0.0053	0.0010		mg/L	1	12/4/2014 1:40:32 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0028	0.0010		mg/L	1	12/3/2014 5:23:23 PM	16624
Lead	0.014	0.0010		mg/L	1	12/3/2014 5:23:23 PM	16624
Selenium	0.0040	0.0010		mg/L	1	12/3/2014 5:23:23 PM	16624
Uranium	0.0041	0.0010		mg/L	1	12/3/2014 5:23:23 PM	16624
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:10:24 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Aniline	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 4:01:51 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Bis(2-ethylhexyl)phthalate	13	10	B	µg/L	1	11/25/2014 4:01:51 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:00:00 PM

Lab ID: 1411861-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 4:01:51 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 4:01:51 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 4:01:51 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
1-Methylnaphthalene	45	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Naphthalene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 4:01:51 PM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Phenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507

Refer to the QC Summary report and 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 69
	E Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:00:00 PM

Lab ID: 1411861-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 4:01:51 PM	16507
Surr: 2-Fluorophenol	67.0	17.6-104		%REC	1	11/25/2014 4:01:51 PM	16507
Surr: Phenol-d5	62.0	17.7-89.9		%REC	1	11/25/2014 4:01:51 PM	16507
Surr: 2,4,6-Tribromophenol	93.1	16.3-122		%REC	1	11/25/2014 4:01:51 PM	16507
Surr: Nitrobenzene-d5	79.0	45.3-117		%REC	1	11/25/2014 4:01:51 PM	16507
Surr: 2-Fluorobiphenyl	80.9	43-113		%REC	1	11/25/2014 4:01:51 PM	16507
Surr: 4-Terphenyl-d14	89.1	47.6-122		%REC	1	11/25/2014 4:01:51 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	1600	200		µg/L	200	11/25/2014 8:50:18 PM	R22801
Toluene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Ethylbenzene	90	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Methyl tert-butyl ether (MTBE)	3900	200		µg/L	200	11/25/2014 8:50:18 PM	R22801
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Naphthalene	ND	20		µg/L	10	11/24/2014 9:18:40 PM	R22767
1-Methylnaphthalene	58	40		µg/L	10	11/24/2014 9:18:40 PM	R22767
2-Methylnaphthalene	ND	40		µg/L	10	11/24/2014 9:18:40 PM	R22767
Acetone	ND	100		µg/L	10	11/24/2014 9:18:40 PM	R22767
Bromobenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Bromodichloromethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Bromoform	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Bromomethane	ND	30		µg/L	10	11/24/2014 9:18:40 PM	R22767
2-Butanone	ND	100		µg/L	10	11/24/2014 9:18:40 PM	R22767
Carbon disulfide	ND	100		µg/L	10	11/24/2014 9:18:40 PM	R22767
Carbon Tetrachloride	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Chlorobenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Chloroethane	ND	20		µg/L	10	11/24/2014 9:18:40 PM	R22767
Chloroform	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Chloromethane	ND	30		µg/L	10	11/24/2014 9:18:40 PM	R22767
2-Chlorotoluene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
4-Chlorotoluene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
cis-1,2-DCE	10	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:00:00 PM

Lab ID: 1411861-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/24/2014 9:18:40 PM	R22767
Dibromochloromethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Dibromomethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,2-Dichlorobenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,3-Dichlorobenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,4-Dichlorobenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Dichlorodifluoromethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,1-Dichloroethane	15	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,1-Dichloroethene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,2-Dichloropropane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,3-Dichloropropane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
2,2-Dichloropropane	ND	20		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,1-Dichloropropene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Hexachlorobutadiene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
2-Hexanone	ND	100		µg/L	10	11/24/2014 9:18:40 PM	R22767
Isopropylbenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
4-Isopropyltoluene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
4-Methyl-2-pentanone	ND	100		µg/L	10	11/24/2014 9:18:40 PM	R22767
Methylene Chloride	ND	30		µg/L	10	11/24/2014 9:18:40 PM	R22767
n-Butylbenzene	ND	30		µg/L	10	11/24/2014 9:18:40 PM	R22767
n-Propylbenzene	13	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
sec-Butylbenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Styrene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
tert-Butylbenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/24/2014 9:18:40 PM	R22767
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
trans-1,2-DCE	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,1,1-Trichloroethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,1,2-Trichloroethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Trichloroethene (TCE)	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Trichlorofluoromethane	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
1,2,3-Trichloropropane	ND	20		µg/L	10	11/24/2014 9:18:40 PM	R22767
Vinyl chloride	ND	10		µg/L	10	11/24/2014 9:18:40 PM	R22767
Xylenes, Total	ND	15		µg/L	10	11/24/2014 9:18:40 PM	R22767
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%REC	10	11/24/2014 9:18:40 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-22

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:00:00 PM

Lab ID: 1411861-001

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	10	11/24/2014 9:18:40 PM	R22767
Surr: Dibromofluoromethane	95.0	70-130		%REC	10	11/24/2014 9:18:40 PM	R22767
Surr: Toluene-d8	102	70-130		%REC	10	11/24/2014 9:18:40 PM	R22767

Refer to the QC Summary report and 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 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:55:00 AM

Lab ID: 1411861-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	7.7	1.0		mg/L	1	11/21/2014 4:03:32 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 4:03:32 AM	16493
Surr: DNOP	85.6	59-141		%REC	1	11/21/2014 4:03:32 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	26	1.0		mg/L	20	11/25/2014 1:42:56 AM	R22770
Surr: BFB	103	80-120		%REC	20	11/25/2014 1:42:56 AM	R22770
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.43	0.10		mg/L	1	11/21/2014 6:38:52 PM	R22742
Chloride	390	10		mg/L	20	11/21/2014 6:51:17 PM	R22742
Bromide	ND	0.10		mg/L	1	11/21/2014 6:38:52 PM	R22742
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/21/2014 6:38:52 PM	R22742
Sulfate	5.9	0.50		mg/L	1	11/21/2014 6:38:52 PM	R22742
Nitrate+Nitrite as N	ND	1.0		mg/L	5	12/1/2014 11:55:28 AM	R22874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.57	0.0020		mg/L	1	12/1/2014 4:22:51 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:22:51 PM	R22857
Calcium	77	1.0		mg/L	1	12/1/2014 4:22:51 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:22:51 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 4:22:51 PM	R22857
Iron	3.1	0.20	*	mg/L	10	12/1/2014 5:33:09 PM	R22857
Magnesium	13	1.0		mg/L	1	12/1/2014 4:22:51 PM	R22857
Manganese	1.7	0.020	*	mg/L	10	12/1/2014 5:33:09 PM	R22857
Potassium	2.1	1.0		mg/L	1	12/1/2014 4:22:51 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 4:22:51 PM	R22857
Sodium	530	10		mg/L	10	12/1/2014 5:33:09 PM	R22857
Zinc	0.018	0.010		mg/L	1	12/1/2014 4:22:51 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.49	0.0020		mg/L	1	12/3/2014 1:09:28 PM	16624
Cadmium	ND	0.0020		mg/L	1	12/3/2014 1:09:28 PM	16624
Chromium	ND	0.0060		mg/L	1	12/3/2014 1:09:28 PM	16624
Copper	ND	0.060		mg/L	10	12/3/2014 1:34:44 PM	16624
Iron	6.2	0.20	*	mg/L	10	12/3/2014 1:34:44 PM	16624
Manganese	1.6	0.020	*	mg/L	10	12/3/2014 1:34:44 PM	16624
Silver	ND	0.0050		mg/L	1	12/3/2014 1:09:28 PM	16624
Zinc	0.035	0.010		mg/L	1	12/3/2014 1:09:28 PM	16624
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.010	0.0050	*	mg/L	5	12/4/2014 2:56:56 PM	R22933

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:55:00 AM

Lab ID: 1411861-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	12/4/2014 1:43:31 PM	R22933
Selenium	ND	0.010		mg/L	10	12/4/2014 3:29:45 PM	R22933
Uranium	0.013	0.0010		mg/L	1	12/4/2014 1:43:31 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.0010	*	mg/L	1	12/3/2014 5:26:27 PM	16624
Lead	0.0050	0.0010		mg/L	1	12/3/2014 5:26:27 PM	16624
Selenium	0.0067	0.0010		mg/L	1	12/3/2014 5:26:27 PM	16624
Uranium	0.016	0.0010		mg/L	1	12/3/2014 5:26:27 PM	16624
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:12:14 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Aniline	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 4:29:09 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Bis(2-ethylhexyl)phthalate	14	10	B	µg/L	1	11/25/2014 4:29:09 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:55:00 AM

Lab ID: 1411861-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 4:29:09 PM	16507
2,4-Dimethylphenol	31	10		µg/L	1	11/25/2014 4:29:09 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 4:29:09 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 4:29:09 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
1-Methylnaphthalene	84	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2-Methylnaphthalene	92	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2-Methylphenol	58	10		µg/L	1	11/25/2014 4:29:09 PM	16507
3+4-Methylphenol	53	10		µg/L	1	11/25/2014 4:29:09 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Naphthalene	130	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 4:29:09 PM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Phenol	27	10		µg/L	1	11/25/2014 4:29:09 PM	16507

Refer to the QC Summary report and 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 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:55:00 AM

Lab ID: 1411861-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 4:29:09 PM	16507
Surr: 2-Fluorophenol	42.5	17.6-104		%REC	1	11/25/2014 4:29:09 PM	16507
Surr: Phenol-d5	51.3	17.7-89.9		%REC	1	11/25/2014 4:29:09 PM	16507
Surr: 2,4,6-Tribromophenol	78.8	16.3-122		%REC	1	11/25/2014 4:29:09 PM	16507
Surr: Nitrobenzene-d5	79.0	45.3-117		%REC	1	11/25/2014 4:29:09 PM	16507
Surr: 2-Fluorobiphenyl	80.2	43-113		%REC	1	11/25/2014 4:29:09 PM	16507
Surr: 4-Terphenyl-d14	80.0	47.6-122		%REC	1	11/25/2014 4:29:09 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	3600	100		µg/L	100	11/24/2014 11:58:52 PM	R22767
Toluene	3000	100		µg/L	100	11/24/2014 11:58:52 PM	R22767
Ethylbenzene	470	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Methyl tert-butyl ether (MTBE)	570	100		µg/L	100	11/24/2014 11:58:52 PM	R22767
1,2,4-Trimethylbenzene	890	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,3,5-Trimethylbenzene	220	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Naphthalene	150	20		µg/L	10	11/25/2014 12:25:34 AM	R22767
1-Methylnaphthalene	74	40		µg/L	10	11/25/2014 12:25:34 AM	R22767
2-Methylnaphthalene	110	40		µg/L	10	11/25/2014 12:25:34 AM	R22767
Acetone	ND	100		µg/L	10	11/25/2014 12:25:34 AM	R22767
Bromobenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Bromodichloromethane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Bromoform	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Bromomethane	ND	30		µg/L	10	11/25/2014 12:25:34 AM	R22767
2-Butanone	ND	100		µg/L	10	11/25/2014 12:25:34 AM	R22767
Carbon disulfide	ND	100		µg/L	10	11/25/2014 12:25:34 AM	R22767
Carbon Tetrachloride	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Chlorobenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Chloroethane	ND	20		µg/L	10	11/25/2014 12:25:34 AM	R22767
Chloroform	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Chloromethane	55	30		µg/L	10	11/25/2014 12:25:34 AM	R22767
2-Chlorotoluene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
4-Chlorotoluene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
cis-1,2-DCE	43	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:55:00 AM

Lab ID: 1411861-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/25/2014 12:25:34 AM	R22767
Dibromochloromethane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Dibromomethane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,2-Dichlorobenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,3-Dichlorobenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,4-Dichlorobenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Dichlorodifluoromethane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,1-Dichloroethane	150	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,1-Dichloroethene	64	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,2-Dichloropropane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,3-Dichloropropane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
2,2-Dichloropropane	ND	20		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,1-Dichloropropene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Hexachlorobutadiene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
2-Hexanone	ND	100		µg/L	10	11/25/2014 12:25:34 AM	R22767
Isopropylbenzene	34	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
4-Isopropyltoluene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
4-Methyl-2-pentanone	ND	100		µg/L	10	11/25/2014 12:25:34 AM	R22767
Methylene Chloride	ND	30		µg/L	10	11/25/2014 12:25:34 AM	R22767
n-Butylbenzene	ND	30		µg/L	10	11/25/2014 12:25:34 AM	R22767
n-Propylbenzene	66	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
sec-Butylbenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Styrene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
tert-Butylbenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/25/2014 12:25:34 AM	R22767
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
trans-1,2-DCE	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,1,1-Trichloroethane	24	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,1,2-Trichloroethane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Trichloroethene (TCE)	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Trichlorofluoromethane	ND	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
1,2,3-Trichloropropane	ND	20		µg/L	10	11/25/2014 12:25:34 AM	R22767
Vinyl chloride	22	10		µg/L	10	11/25/2014 12:25:34 AM	R22767
Xylenes, Total	4500	150		µg/L	100	11/24/2014 11:58:52 PM	R22767
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	10	11/25/2014 12:25:34 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:55:00 AM

Lab ID: 1411861-002

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	79.2	70-130		%REC	10	11/25/2014 12:25:34 AM	R22767
Surr: Dibromofluoromethane	94.5	70-130		%REC	10	11/25/2014 12:25:34 AM	R22767
Surr: Toluene-d8	98.0	70-130		%REC	10	11/25/2014 12:25:34 AM	R22767

Refer to the QC Summary report and 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 12 of 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:15:00 AM

Lab ID: 1411861-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/21/2014 4:24:44 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 4:24:44 AM	16493
Surr: DNOP	96.8	59-141		%REC	1	11/21/2014 4:24:44 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.054	0.050		mg/L	1	11/25/2014 2:11:34 AM	R22770
Surr: BFB	89.7	80-120		%REC	1	11/25/2014 2:11:34 AM	R22770
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.56	0.10		mg/L	1	11/21/2014 7:03:42 PM	R22742
Chloride	1400	50		mg/L	100	12/1/2014 6:45:06 PM	R22874
Bromide	1.3	0.10		mg/L	1	11/21/2014 7:03:42 PM	R22742
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/21/2014 7:03:42 PM	R22742
Sulfate	730	10		mg/L	20	11/21/2014 7:16:06 PM	R22742
Nitrate+Nitrite as N	ND	1.0		mg/L	5	12/1/2014 12:07:53 PM	R22874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.036	0.0020		mg/L	1	12/1/2014 4:24:24 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:24:24 PM	R22857
Calcium	180	10		mg/L	10	12/1/2014 5:35:01 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:24:24 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 4:24:24 PM	R22857
Iron	0.26	0.020		mg/L	1	12/1/2014 4:24:24 PM	R22857
Magnesium	32	1.0		mg/L	1	12/1/2014 4:24:24 PM	R22857
Manganese	0.021	0.0020		mg/L	1	12/1/2014 4:24:24 PM	R22857
Potassium	ND	1.0		mg/L	1	12/1/2014 4:24:24 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 4:24:24 PM	R22857
Sodium	1200	20		mg/L	20	12/1/2014 5:36:55 PM	R22857
Zinc	0.039	0.010		mg/L	1	12/1/2014 4:24:24 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.26	0.0020		mg/L	1	12/3/2014 1:11:03 PM	16624
Cadmium	ND	0.0020		mg/L	1	12/3/2014 1:11:03 PM	16624
Chromium	0.0070	0.0060		mg/L	1	12/3/2014 1:11:03 PM	16624
Copper	ND	0.0060		mg/L	1	12/3/2014 1:11:03 PM	16624
Iron	8.0	0.20	*	mg/L	10	12/3/2014 1:36:35 PM	16624
Manganese	0.72	0.0020	*	mg/L	1	12/3/2014 1:11:03 PM	16624
Silver	ND	0.0050		mg/L	1	12/3/2014 1:11:03 PM	16624
Zinc	0.029	0.010		mg/L	1	12/3/2014 1:11:03 PM	16624
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/4/2014 2:59:55 PM	R22933

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:15:00 AM

Lab ID: 1411861-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	12/4/2014 1:46:31 PM	R22933
Selenium	ND	0.010		mg/L	10	12/4/2014 2:59:55 PM	R22933
Uranium	0.041	0.0010	*	mg/L	1	12/4/2014 1:46:31 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/5/2014 1:38:07 PM	16624
Lead	0.0090	0.0010		mg/L	1	12/3/2014 5:29:32 PM	16624
Selenium	0.010	0.0050		mg/L	5	12/5/2014 1:38:07 PM	16624
Uranium	0.039	0.0010	*	mg/L	1	12/3/2014 5:29:32 PM	16624
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:14:04 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Aniline	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Anthracene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Azobenzene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Benzoic acid	ND	20		µg/L	1	11/25/2014 4:56:38 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Bis(2-ethylhexyl)phthalate	11	10	B	µg/L	1	11/25/2014 4:56:38 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Carbazole	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Chrysene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:15:00 AM

Lab ID: 1411861-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2014 4:56:38 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2014 4:56:38 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2014 4:56:38 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Fluoranthene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Fluorene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Isophorone	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Naphthalene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/25/2014 4:56:38 PM	16507
Phenanthrene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Phenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:15:00 AM

Lab ID: 1411861-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Pyridine	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2014 4:56:38 PM	16507
Surr: 2-Fluorophenol	55.2	17.6-104		%REC	1	11/25/2014 4:56:38 PM	16507
Surr: Phenol-d5	54.1	17.7-89.9		%REC	1	11/25/2014 4:56:38 PM	16507
Surr: 2,4,6-Tribromophenol	78.3	16.3-122		%REC	1	11/25/2014 4:56:38 PM	16507
Surr: Nitrobenzene-d5	80.3	45.3-117		%REC	1	11/25/2014 4:56:38 PM	16507
Surr: 2-Fluorobiphenyl	77.5	43-113		%REC	1	11/25/2014 4:56:38 PM	16507
Surr: 4-Terphenyl-d14	76.2	47.6-122		%REC	1	11/25/2014 4:56:38 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Toluene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Methyl tert-butyl ether (MTBE)	3.7	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2-Dichloroethane (EDC)	5.3	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Naphthalene	ND	2.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Acetone	ND	10		µg/L	1	11/25/2014 1:18:54 AM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Bromoform	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Bromomethane	ND	3.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
2-Butanone	ND	10		µg/L	1	11/25/2014 1:18:54 AM	R22767
Carbon disulfide	ND	10		µg/L	1	11/25/2014 1:18:54 AM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Chloroethane	ND	2.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Chloroform	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Chloromethane	ND	3.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
cis-1,2-DCE	3.9	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:15:00 AM

Lab ID: 1411861-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,1-Dichloroethane	87	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,1-Dichloroethene	2.7	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,1-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
2-Hexanone	ND	10		µg/L	1	11/25/2014 1:18:54 AM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/25/2014 1:18:54 AM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Styrene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,1,1-Trichloroethane	3.0	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,1,2-Trichloroethane	1.1	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Trichloroethene (TCE)	4.4	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Vinyl chloride	4.8	1.0		µg/L	1	11/25/2014 1:18:54 AM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/25/2014 1:18:54 AM	R22767
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	11/25/2014 1:18:54 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-30

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 11:15:00 AM

Lab ID: 1411861-003

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 4-Bromofluorobenzene	125	70-130		%REC	1	11/25/2014 1:18:54 AM	R22767
Surr: Dibromofluoromethane	105	70-130		%REC	1	11/25/2014 1:18:54 AM	R22767
Surr: Toluene-d8	106	70-130		%REC	1	11/25/2014 1:18:54 AM	R22767

Refer to the QC Summary report and 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 18 of 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:10:00 PM

Lab ID: 1411861-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/21/2014 4:46:00 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 4:46:00 AM	16493
Surr: DNOP	97.9	59-141		%REC	1	11/21/2014 4:46:00 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.068	0.050		mg/L	1	11/25/2014 2:40:12 AM	R22770
Surr: BFB	90.9	80-120		%REC	1	11/25/2014 2:40:12 AM	R22770
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	0.10		mg/L	1	11/21/2014 7:28:31 PM	R22742
Chloride	920	50		mg/L	100	12/1/2014 6:57:31 PM	R22874
Bromide	ND	0.10		mg/L	1	11/21/2014 7:28:31 PM	R22742
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/21/2014 7:28:31 PM	R22742
Sulfate	82	10		mg/L	20	11/21/2014 7:40:56 PM	R22742
Nitrate+Nitrite as N	ND	1.0		mg/L	5	12/1/2014 12:20:18 PM	R22874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	12/1/2014 4:26:18 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:26:18 PM	R22857
Calcium	210	10		mg/L	10	12/1/2014 5:38:56 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:26:18 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 4:26:18 PM	R22857
Iron	ND	0.020		mg/L	1	12/1/2014 4:26:18 PM	R22857
Magnesium	40	1.0		mg/L	1	12/1/2014 4:26:18 PM	R22857
Manganese	0.059	0.0020	*	mg/L	1	12/1/2014 4:26:18 PM	R22857
Potassium	1.7	1.0		mg/L	1	12/1/2014 4:26:18 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 4:26:18 PM	R22857
Sodium	550	10		mg/L	10	12/1/2014 5:38:56 PM	R22857
Zinc	0.027	0.010		mg/L	1	12/1/2014 4:26:18 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.22	0.0020		mg/L	1	12/3/2014 1:12:52 PM	16624
Cadmium	ND	0.0020		mg/L	1	12/3/2014 1:12:52 PM	16624
Chromium	ND	0.0060		mg/L	1	12/3/2014 1:12:52 PM	16624
Copper	ND	0.0060		mg/L	1	12/3/2014 1:12:52 PM	16624
Iron	2.9	0.10	*	mg/L	5	12/3/2014 1:38:27 PM	16624
Manganese	0.24	0.0020	*	mg/L	1	12/3/2014 1:12:52 PM	16624
Silver	ND	0.0050		mg/L	1	12/3/2014 1:12:52 PM	16624
Zinc	0.017	0.010		mg/L	1	12/3/2014 1:12:52 PM	16624
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/4/2014 3:02:54 PM	R22933

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:10:00 PM

Lab ID: 1411861-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	12/4/2014 1:49:30 PM	R22933
Selenium	0.0075	0.0050		mg/L	5	12/4/2014 3:02:54 PM	R22933
Uranium	0.045	0.0050	*	mg/L	5	12/4/2014 3:02:54 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/5/2014 1:47:23 PM	16624
Lead	0.0041	0.0010		mg/L	1	12/3/2014 5:32:37 PM	16624
Selenium	0.0080	0.0050		mg/L	5	12/5/2014 1:47:23 PM	16624
Uranium	0.050	0.0010	*	mg/L	1	12/3/2014 5:32:37 PM	16624
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:15:55 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Aniline	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Anthracene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Azobenzene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Benzoic acid	ND	20		µg/L	1	11/24/2014 7:34:40 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Bis(2-ethylhexyl)phthalate	13	10	B	µg/L	1	11/24/2014 7:34:40 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Carbazole	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Chrysene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:10:00 PM

Lab ID: 1411861-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/24/2014 7:34:40 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/24/2014 7:34:40 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/24/2014 7:34:40 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Fluoranthene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Fluorene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Isophorone	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Naphthalene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/24/2014 7:34:40 PM	16507
Phenanthrene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Phenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507

Refer to the QC Summary report and 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 21 of 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:10:00 PM

Lab ID: 1411861-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Pyridine	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/24/2014 7:34:40 PM	16507
Surr: 2-Fluorophenol	69.2	17.6-104		%REC	1	11/24/2014 7:34:40 PM	16507
Surr: Phenol-d5	66.0	17.7-89.9		%REC	1	11/24/2014 7:34:40 PM	16507
Surr: 2,4,6-Tribromophenol	91.1	16.3-122		%REC	1	11/24/2014 7:34:40 PM	16507
Surr: Nitrobenzene-d5	93.4	45.3-117		%REC	1	11/24/2014 7:34:40 PM	16507
Surr: 2-Fluorobiphenyl	87.9	43-113		%REC	1	11/24/2014 7:34:40 PM	16507
Surr: 4-Terphenyl-d14	83.4	47.6-122		%REC	1	11/24/2014 7:34:40 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Toluene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Methyl tert-butyl ether (MTBE)	58	10		µg/L	10	11/25/2014 6:36:29 PM	R22801
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,2-Dichloroethane (EDC)	16	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Naphthalene	ND	2.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Acetone	ND	10		µg/L	1	11/25/2014 1:45:34 AM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Bromoform	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Bromomethane	ND	3.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
2-Butanone	ND	10		µg/L	1	11/25/2014 1:45:34 AM	R22767
Carbon disulfide	ND	10		µg/L	1	11/25/2014 1:45:34 AM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Chloroethane	ND	2.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Chloroform	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Chloromethane	ND	3.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
cis-1,2-DCE	1.8	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:10:00 PM

Lab ID: 1411861-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,1-Dichloroethane	29	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,1-Dichloroethene	34	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,1-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
2-Hexanone	ND	10		µg/L	1	11/25/2014 1:45:34 AM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/25/2014 1:45:34 AM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Styrene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,1,1-Trichloroethane	3.9	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,1,2-Trichloroethane	1.6	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Trichloroethene (TCE)	2.4	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Vinyl chloride	1.9	1.0		µg/L	1	11/25/2014 1:45:34 AM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/25/2014 1:45:34 AM	R22767
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	11/25/2014 1:45:34 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:10:00 PM

Lab ID: 1411861-004

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	126	70-130		%REC	1	11/25/2014 1:45:34 AM	R22767
Surr: Dibromofluoromethane	104	70-130		%REC	1	11/25/2014 1:45:34 AM	R22767
Surr: Toluene-d8	103	70-130		%REC	1	11/25/2014 1:45:34 AM	R22767

Refer to the QC Summary report and 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 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:50:00 PM

Lab ID: 1411861-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/21/2014 5:07:23 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 5:07:23 AM	16493
Surr: DNOP	95.7	59-141		%REC	1	11/21/2014 5:07:23 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.28	0.25		mg/L	5	11/25/2014 3:08:44 AM	R22770
Surr: BFB	90.8	80-120		%REC	5	11/25/2014 3:08:44 AM	R22770
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.27	0.10		mg/L	1	11/21/2014 7:53:21 PM	R22742
Chloride	610	25		mg/L	50	12/1/2014 7:09:56 PM	R22874
Bromide	1.3	0.10		mg/L	1	11/21/2014 7:53:21 PM	R22742
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/21/2014 7:53:21 PM	R22742
Sulfate	100	10		mg/L	20	11/21/2014 8:05:45 PM	R22742
Nitrate+Nitrite as N	ND	1.0		mg/L	5	12/1/2014 12:32:43 PM	R22874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.064	0.0020		mg/L	1	12/1/2014 4:28:21 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:28:21 PM	R22857
Calcium	37	1.0		mg/L	1	12/1/2014 4:28:21 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:28:21 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 4:28:21 PM	R22857
Iron	0.21	0.020		mg/L	1	12/1/2014 4:28:21 PM	R22857
Magnesium	7.0	1.0		mg/L	1	12/1/2014 4:28:21 PM	R22857
Manganese	0.094	0.0020	*	mg/L	1	12/1/2014 4:28:21 PM	R22857
Potassium	ND	1.0		mg/L	1	12/1/2014 4:28:21 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 4:28:21 PM	R22857
Sodium	680	10		mg/L	10	12/1/2014 5:40:53 PM	R22857
Zinc	0.010	0.010		mg/L	1	12/1/2014 4:28:21 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.091	0.0020		mg/L	1	12/3/2014 1:14:39 PM	16624
Cadmium	ND	0.0020		mg/L	1	12/3/2014 1:14:39 PM	16624
Chromium	ND	0.0060		mg/L	1	12/3/2014 1:14:39 PM	16624
Copper	ND	0.0060		mg/L	1	12/3/2014 1:14:39 PM	16624
Iron	2.0	0.10	*	mg/L	5	12/3/2014 1:40:26 PM	16624
Manganese	0.23	0.0020	*	mg/L	1	12/3/2014 1:14:39 PM	16624
Silver	ND	0.0050		mg/L	1	12/3/2014 1:14:39 PM	16624
Zinc	0.014	0.010		mg/L	1	12/3/2014 1:14:39 PM	16624
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/4/2014 3:05:53 PM	R22933

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:50:00 PM

Lab ID: 1411861-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	12/4/2014 1:52:30 PM	R22933
Selenium	ND	0.010		mg/L	10	12/4/2014 3:32:44 PM	R22933
Uranium	0.059	0.0050	*	mg/L	5	12/4/2014 3:05:53 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/5/2014 1:50:28 PM	16624
Lead	0.0027	0.0010		mg/L	1	12/3/2014 5:35:42 PM	16624
Selenium	ND	0.010		mg/L	10	12/5/2014 3:29:17 PM	16624
Uranium	0.067	0.0050	*	mg/L	5	12/5/2014 1:50:28 PM	16624
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:17:46 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Aniline	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Anthracene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Azobenzene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Benzoic acid	ND	20		µg/L	1	11/24/2014 8:01:40 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Bis(2-ethylhexyl)phthalate	12	10	B	µg/L	1	11/24/2014 8:01:40 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Carbazole	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Chrysene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:50:00 PM

Lab ID: 1411861-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/24/2014 8:01:40 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/24/2014 8:01:40 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/24/2014 8:01:40 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Fluoranthene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Fluorene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Isophorone	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Naphthalene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/24/2014 8:01:40 PM	16507
Phenanthrene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Phenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:50:00 PM

Lab ID: 1411861-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Pyridine	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/24/2014 8:01:40 PM	16507
Surr: 2-Fluorophenol	69.0	17.6-104		%REC	1	11/24/2014 8:01:40 PM	16507
Surr: Phenol-d5	63.4	17.7-89.9		%REC	1	11/24/2014 8:01:40 PM	16507
Surr: 2,4,6-Tribromophenol	86.2	16.3-122		%REC	1	11/24/2014 8:01:40 PM	16507
Surr: Nitrobenzene-d5	87.2	45.3-117		%REC	1	11/24/2014 8:01:40 PM	16507
Surr: 2-Fluorobiphenyl	81.2	43-113		%REC	1	11/24/2014 8:01:40 PM	16507
Surr: 4-Terphenyl-d14	85.9	47.6-122		%REC	1	11/24/2014 8:01:40 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Toluene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Ethylbenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Methyl tert-butyl ether (MTBE)	400	20		µg/L	20	11/25/2014 7:03:10 PM	R22801
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,2-Dichloroethane (EDC)	28	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Naphthalene	ND	2.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
2-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Acetone	ND	10		µg/L	1	11/25/2014 7:29:56 PM	R22801
Bromobenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Bromodichloromethane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Bromoform	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Bromomethane	ND	3.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
2-Butanone	ND	10		µg/L	1	11/25/2014 7:29:56 PM	R22801
Carbon disulfide	ND	10		µg/L	1	11/25/2014 7:29:56 PM	R22801
Carbon Tetrachloride	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Chlorobenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Chloroethane	ND	2.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Chloroform	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Chloromethane	13	3.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
2-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
4-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
cis-1,2-DCE	1.2	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:50:00 PM

Lab ID: 1411861-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Dibromochloromethane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Dibromomethane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,1-Dichloroethane	24	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,1-Dichloroethene	41	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,2-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,3-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
2,2-Dichloropropane	ND	2.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,1-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Hexachlorobutadiene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
2-Hexanone	ND	10		µg/L	1	11/25/2014 7:29:56 PM	R22801
Isopropylbenzene	1.1	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
4-Isopropyltoluene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
4-Methyl-2-pentanone	ND	10		µg/L	1	11/25/2014 7:29:56 PM	R22801
Methylene Chloride	ND	3.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
n-Butylbenzene	ND	3.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
n-Propylbenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
sec-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Styrene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
tert-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
trans-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,1,1-Trichloroethane	1.1	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,1,2-Trichloroethane	2.5	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Trichlorofluoromethane	ND	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Vinyl chloride	2.0	1.0		µg/L	1	11/25/2014 7:29:56 PM	R22801
Xylenes, Total	ND	1.5		µg/L	1	11/25/2014 7:29:56 PM	R22801
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%REC	1	11/25/2014 7:29:56 PM	R22801

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:50:00 PM

Lab ID: 1411861-005

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1	11/25/2014 7:29:56 PM	R22801
Surr: Dibromofluoromethane	98.1	70-130		%REC	1	11/25/2014 7:29:56 PM	R22801
Surr: Toluene-d8	112	70-130		%REC	1	11/25/2014 7:29:56 PM	R22801

Refer to the QC Summary report and 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 30 of 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:30:00 PM

Lab ID: 1411861-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/21/2014 5:28:42 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 5:28:42 AM	16493
Surr: DNOP	94.1	59-141		%REC	1	11/21/2014 5:28:42 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.36	0.25		mg/L	5	11/25/2014 3:37:18 AM	R22770
Surr: BFB	89.3	80-120		%REC	5	11/25/2014 3:37:18 AM	R22770
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.31	0.10		mg/L	1	11/21/2014 8:18:10 PM	R22742
Chloride	98	10		mg/L	20	11/21/2014 8:30:34 PM	R22742
Bromide	0.61	0.10		mg/L	1	11/21/2014 8:18:10 PM	R22742
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/21/2014 8:18:10 PM	R22742
Sulfate	360	10		mg/L	20	11/21/2014 8:30:34 PM	R22742
Nitrate+Nitrite as N	ND	1.0		mg/L	5	12/1/2014 12:45:07 PM	R22874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.064	0.0020		mg/L	1	12/1/2014 4:37:03 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:37:03 PM	R22857
Calcium	89	1.0		mg/L	1	12/1/2014 4:37:03 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:37:03 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 4:37:03 PM	R22857
Iron	0.061	0.020		mg/L	1	12/1/2014 4:37:03 PM	R22857
Magnesium	19	1.0		mg/L	1	12/1/2014 4:37:03 PM	R22857
Manganese	0.24	0.0020	*	mg/L	1	12/1/2014 4:37:03 PM	R22857
Potassium	1.3	1.0		mg/L	1	12/1/2014 4:37:03 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 4:37:03 PM	R22857
Sodium	310	10		mg/L	10	12/1/2014 5:43:06 PM	R22857
Zinc	0.016	0.010		mg/L	1	12/1/2014 4:37:03 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.18	0.0020		mg/L	1	12/3/2014 1:16:25 PM	16624
Cadmium	ND	0.0020		mg/L	1	12/3/2014 1:16:25 PM	16624
Chromium	ND	0.0060		mg/L	1	12/3/2014 1:16:25 PM	16624
Copper	ND	0.0060		mg/L	1	12/3/2014 1:16:25 PM	16624
Iron	3.3	0.10	*	mg/L	5	12/3/2014 1:42:17 PM	16624
Manganese	0.92	0.0020	*	mg/L	1	12/3/2014 1:16:25 PM	16624
Silver	ND	0.0050		mg/L	1	12/3/2014 1:16:25 PM	16624
Zinc	0.018	0.010		mg/L	1	12/3/2014 1:16:25 PM	16624
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/4/2014 3:08:52 PM	R22933

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:30:00 PM

Lab ID: 1411861-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	12/4/2014 1:55:29 PM	R22933
Selenium	ND	0.0050		mg/L	5	12/4/2014 3:08:52 PM	R22933
Uranium	0.045	0.0010	*	mg/L	1	12/4/2014 1:55:29 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0016	0.0010		mg/L	1	12/3/2014 5:44:59 PM	16624
Lead	0.0050	0.0010		mg/L	1	12/3/2014 5:44:59 PM	16624
Selenium	0.0031	0.0010		mg/L	1	12/3/2014 5:44:59 PM	16624
Uranium	0.043	0.0010	*	mg/L	1	12/3/2014 5:44:59 PM	16624
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:19:38 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Aniline	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Anthracene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Azobenzene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Benzoic acid	ND	20		µg/L	1	11/24/2014 8:28:31 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Bis(2-ethylhexyl)phthalate	12	10	B	µg/L	1	11/24/2014 8:28:31 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Carbazole	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Chrysene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:30:00 PM

Lab ID: 1411861-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/24/2014 8:28:31 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/24/2014 8:28:31 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/24/2014 8:28:31 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Fluoranthene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Fluorene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Isophorone	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Naphthalene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/24/2014 8:28:31 PM	16507
Phenanthrene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Phenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507

Refer to the QC Summary report and 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 33 of 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:30:00 PM

Lab ID: 1411861-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Pyridine	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/24/2014 8:28:31 PM	16507
Surr: 2-Fluorophenol	76.9	17.6-104		%REC	1	11/24/2014 8:28:31 PM	16507
Surr: Phenol-d5	68.1	17.7-89.9		%REC	1	11/24/2014 8:28:31 PM	16507
Surr: 2,4,6-Tribromophenol	101	16.3-122		%REC	1	11/24/2014 8:28:31 PM	16507
Surr: Nitrobenzene-d5	98.8	45.3-117		%REC	1	11/24/2014 8:28:31 PM	16507
Surr: 2-Fluorobiphenyl	95.3	43-113		%REC	1	11/24/2014 8:28:31 PM	16507
Surr: 4-Terphenyl-d14	92.4	47.6-122		%REC	1	11/24/2014 8:28:31 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Toluene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Ethylbenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Methyl tert-butyl ether (MTBE)	410	20		µg/L	20	11/25/2014 7:56:44 PM	R22801
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Naphthalene	ND	2.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
2-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Acetone	ND	10		µg/L	1	11/25/2014 8:23:28 PM	R22801
Bromobenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Bromodichloromethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Bromoform	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Bromomethane	ND	3.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
2-Butanone	ND	10		µg/L	1	11/25/2014 8:23:28 PM	R22801
Carbon disulfide	ND	10		µg/L	1	11/25/2014 8:23:28 PM	R22801
Carbon Tetrachloride	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Chlorobenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Chloroethane	ND	2.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Chloroform	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Chloromethane	ND	3.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
2-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
4-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
cis-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:30:00 PM

Lab ID: 1411861-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Dibromochloromethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Dibromomethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,1-Dichloroethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,1-Dichloroethene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,2-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,3-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
2,2-Dichloropropane	ND	2.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,1-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Hexachlorobutadiene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
2-Hexanone	ND	10		µg/L	1	11/25/2014 8:23:28 PM	R22801
Isopropylbenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
4-Isopropyltoluene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
4-Methyl-2-pentanone	ND	10		µg/L	1	11/25/2014 8:23:28 PM	R22801
Methylene Chloride	ND	3.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
n-Butylbenzene	ND	3.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
n-Propylbenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
sec-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Styrene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
tert-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
trans-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Trichlorofluoromethane	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Vinyl chloride	ND	1.0		µg/L	1	11/25/2014 8:23:28 PM	R22801
Xylenes, Total	ND	1.5		µg/L	1	11/25/2014 8:23:28 PM	R22801
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%REC	1	11/25/2014 8:23:28 PM	R22801

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 1:30:00 PM

Lab ID: 1411861-006

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1	11/25/2014 8:23:28 PM	R22801
Surr: Dibromofluoromethane	102	70-130		%REC	1	11/25/2014 8:23:28 PM	R22801
Surr: Toluene-d8	107	70-130		%REC	1	11/25/2014 8:23:28 PM	R22801

Refer to the QC Summary report and 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 36 of 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:50:00 PM

Lab ID: 1411861-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/21/2014 5:49:58 AM	16493
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/21/2014 5:49:58 AM	16493
Surr: DNOP	97.9	59-141		%REC	1	11/21/2014 5:49:58 AM	16493
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/25/2014 4:05:49 AM	R22770
Surr: BFB	88.1	80-120		%REC	1	11/25/2014 4:05:49 AM	R22770
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.54	0.10		mg/L	1	11/21/2014 9:07:48 PM	R22742
Chloride	400	25		mg/L	50	12/1/2014 7:22:21 PM	R22874
Bromide	2.2	0.10		mg/L	1	11/21/2014 9:07:48 PM	R22742
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/21/2014 9:07:48 PM	R22742
Sulfate	73	10		mg/L	20	11/21/2014 9:20:12 PM	R22742
Nitrate+Nitrite as N	6.6	1.0		mg/L	5	12/1/2014 12:57:32 PM	R22874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.15	0.0020		mg/L	1	12/1/2014 4:38:55 PM	R22857
Cadmium	ND	0.0020		mg/L	1	12/1/2014 4:38:55 PM	R22857
Calcium	63	1.0		mg/L	1	12/1/2014 4:38:55 PM	R22857
Chromium	ND	0.0060		mg/L	1	12/1/2014 4:38:55 PM	R22857
Copper	ND	0.0060		mg/L	1	12/1/2014 4:38:55 PM	R22857
Iron	ND	0.020		mg/L	1	12/1/2014 4:38:55 PM	R22857
Magnesium	14	1.0		mg/L	1	12/1/2014 4:38:55 PM	R22857
Manganese	0.0041	0.0020		mg/L	1	12/1/2014 4:38:55 PM	R22857
Potassium	1.8	1.0		mg/L	1	12/1/2014 4:38:55 PM	R22857
Silver	ND	0.0050		mg/L	1	12/1/2014 4:38:55 PM	R22857
Sodium	360	10		mg/L	10	12/1/2014 5:44:54 PM	R22857
Zinc	0.051	0.010		mg/L	1	12/1/2014 4:38:55 PM	R22857
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	12/3/2014 1:18:01 PM	16624
Cadmium	ND	0.0020		mg/L	1	12/3/2014 1:18:01 PM	16624
Chromium	ND	0.0060		mg/L	1	12/3/2014 1:18:01 PM	16624
Copper	ND	0.0060		mg/L	1	12/3/2014 1:18:01 PM	16624
Iron	2.4	0.10	*	mg/L	5	12/3/2014 1:44:09 PM	16624
Manganese	0.075	0.0020	*	mg/L	1	12/3/2014 1:18:01 PM	16624
Silver	ND	0.0050		mg/L	1	12/3/2014 1:18:01 PM	16624
Zinc	0.037	0.010		mg/L	1	12/3/2014 1:18:01 PM	16624
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/4/2014 3:11:51 PM	R22933

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:50:00 PM

Lab ID: 1411861-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	12/4/2014 2:04:28 PM	R22933
Selenium	ND	0.020		mg/L	20	12/4/2014 3:35:43 PM	R22933
Uranium	0.027	0.0010		mg/L	1	12/4/2014 2:04:28 PM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/5/2014 3:32:22 PM	16624
Lead	0.0014	0.0010		mg/L	1	12/3/2014 5:48:04 PM	16624
Selenium	ND	0.020		mg/L	20	12/5/2014 3:38:32 PM	16624
Uranium	0.026	0.0010		mg/L	1	12/3/2014 5:48:04 PM	16624
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	12/2/2014 2:21:22 PM	16625
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Aniline	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Anthracene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Azobenzene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Benzoic acid	ND	20		µg/L	1	11/24/2014 8:55:25 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Bis(2-ethylhexyl)phthalate	14	10	B	µg/L	1	11/24/2014 8:55:25 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Carbazole	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Chrysene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:50:00 PM

Lab ID: 1411861-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/24/2014 8:55:25 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/24/2014 8:55:25 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/24/2014 8:55:25 PM	16507
2,4-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Fluoranthene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Fluorene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Isophorone	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Naphthalene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/24/2014 8:55:25 PM	16507
Phenanthrene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Phenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:50:00 PM

Lab ID: 1411861-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Pyridine	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/24/2014 8:55:25 PM	16507
Surr: 2-Fluorophenol	73.8	17.6-104		%REC	1	11/24/2014 8:55:25 PM	16507
Surr: Phenol-d5	66.0	17.7-89.9		%REC	1	11/24/2014 8:55:25 PM	16507
Surr: 2,4,6-Tribromophenol	92.5	16.3-122		%REC	1	11/24/2014 8:55:25 PM	16507
Surr: Nitrobenzene-d5	87.1	45.3-117		%REC	1	11/24/2014 8:55:25 PM	16507
Surr: 2-Fluorobiphenyl	89.5	43-113		%REC	1	11/24/2014 8:55:25 PM	16507
Surr: 4-Terphenyl-d14	88.5	47.6-122		%REC	1	11/24/2014 8:55:25 PM	16507
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Toluene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Naphthalene	ND	2.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Acetone	ND	10		µg/L	1	11/25/2014 3:05:26 AM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Bromoform	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Bromomethane	ND	3.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
2-Butanone	ND	10		µg/L	1	11/25/2014 3:05:26 AM	R22767
Carbon disulfide	ND	10		µg/L	1	11/25/2014 3:05:26 AM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Chloroethane	ND	2.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Chloroform	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Chloromethane	ND	3.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
cis-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:50:00 PM

Lab ID: 1411861-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,1-Dichloroethane	1.5	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,1-Dichloroethene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,1-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
2-Hexanone	ND	10		µg/L	1	11/25/2014 3:05:26 AM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/25/2014 3:05:26 AM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Styrene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Trichloroethene (TCE)	1.4	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Vinyl chloride	ND	1.0		µg/L	1	11/25/2014 3:05:26 AM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/25/2014 3:05:26 AM	R22767
Surr: 1,2-Dichloroethane-d4	108	70-130		%REC	1	11/25/2014 3:05:26 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-34

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 2:50:00 PM

Lab ID: 1411861-007

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	116	70-130		%REC	1	11/25/2014 3:05:26 AM	R22767
Surr: Dibromofluoromethane	103	70-130		%REC	1	11/25/2014 3:05:26 AM	R22767
Surr: Toluene-d8	106	70-130		%REC	1	11/25/2014 3:05:26 AM	R22767

Refer to the QC Summary report and 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 42 of 69
	E	Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 4th QTR MKTF Wells

Collection Date:

Lab ID: 1411861-008

Matrix: TRIP BLANK

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Toluene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Naphthalene	ND	2.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Acetone	ND	10		µg/L	1	11/24/2014 8:51:56 PM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Bromoform	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Bromomethane	ND	3.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
2-Butanone	ND	10		µg/L	1	11/24/2014 8:51:56 PM	R22767
Carbon disulfide	ND	10		µg/L	1	11/24/2014 8:51:56 PM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Chloroethane	ND	2.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Chloroform	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Chloromethane	ND	3.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
cis-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,1-Dichloroethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,1-Dichloroethene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/24/2014 8:51:56 PM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 4th QTR MKTF Wells

Collection Date:

Lab ID: 1411861-008

Matrix: TRIP BLANK

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
2-Hexanone	ND	10		µg/L	1	11/24/2014 8:51:56 PM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/24/2014 8:51:56 PM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Styrene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Vinyl chloride	ND	1.0		µg/L	1	11/24/2014 8:51:56 PM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/24/2014 8:51:56 PM	R22767
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	11/24/2014 8:51:56 PM	R22767
Surr: 4-Bromofluorobenzene	119	70-130		%REC	1	11/24/2014 8:51:56 PM	R22767
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	11/24/2014 8:51:56 PM	R22767
Surr: Toluene-d8	108	70-130		%REC	1	11/24/2014 8:51:56 PM	R22767

Refer to the QC Summary report and 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 44 of 69
	E Value 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 greater than 2.	
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 8:00:00 AM

Lab ID: 1411861-009

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Toluene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Ethylbenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Naphthalene	ND	2.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
2-Methylnaphthalene	ND	4.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Acetone	ND	10		µg/L	1	11/25/2014 3:32:03 AM	R22767
Bromobenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Bromodichloromethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Bromoform	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Bromomethane	ND	3.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
2-Butanone	ND	10		µg/L	1	11/25/2014 3:32:03 AM	R22767
Carbon disulfide	ND	10		µg/L	1	11/25/2014 3:32:03 AM	R22767
Carbon Tetrachloride	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Chlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Chloroethane	ND	2.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Chloroform	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Chloromethane	ND	3.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
2-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
4-Chlorotoluene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
cis-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Dibromochloromethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Dibromomethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,1-Dichloroethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,1-Dichloroethene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,3-Dichloropropane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
2,2-Dichloropropane	ND	2.0		µg/L	1	11/25/2014 3:32:03 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 **1411861**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014 8:00:00 AM

Lab ID: 1411861-009

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Hexachlorobutadiene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
2-Hexanone	ND	10		µg/L	1	11/25/2014 3:32:03 AM	R22767
Isopropylbenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
4-Isopropyltoluene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
4-Methyl-2-pentanone	ND	10		µg/L	1	11/25/2014 3:32:03 AM	R22767
Methylene Chloride	ND	3.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
n-Butylbenzene	ND	3.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
n-Propylbenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
sec-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Styrene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
tert-Butylbenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
trans-1,2-DCE	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Trichlorofluoromethane	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Vinyl chloride	ND	1.0		µg/L	1	11/25/2014 3:32:03 AM	R22767
Xylenes, Total	ND	1.5		µg/L	1	11/25/2014 3:32:03 AM	R22767
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	11/25/2014 3:32:03 AM	R22767
Surr: 4-Bromofluorobenzene	122	70-130		%REC	1	11/25/2014 3:32:03 AM	R22767
Surr: Dibromofluoromethane	95.1	70-130		%REC	1	11/25/2014 3:32:03 AM	R22767
Surr: Toluene-d8	107	70-130		%REC	1	11/25/2014 3:32:03 AM	R22767

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-11-17-14

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014

Lab ID: 1411861-010

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Acenaphthylene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Aniline	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Anthracene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Azobenzene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Benz(a)anthracene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Benzo(a)pyrene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Benzo(b)fluoranthene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Benzo(k)fluoranthene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Benzoic acid	ND	20		µg/L	1	11/24/2014 9:22:16 PM	16507
Benzyl alcohol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Butyl benzyl phthalate	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Carbazole	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
4-Chloroaniline	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2-Chloronaphthalene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2-Chlorophenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Chrysene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Di-n-butyl phthalate	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Di-n-octyl phthalate	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Dibenzofuran	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
1,2-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
1,3-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
1,4-Dichlorobenzene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Diethyl phthalate	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Dimethyl phthalate	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2,4-Dichlorophenol	ND	20		µg/L	1	11/24/2014 9:22:16 PM	16507
2,4-Dimethylphenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/24/2014 9:22:16 PM	16507
2,4-Dinitrophenol	ND	20		µg/L	1	11/24/2014 9:22:16 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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 1411861

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-11-17-14

Project: 2014 4th QTR MKTF Wells

Collection Date: 11/17/2014

Lab ID: 1411861-010

Matrix: AQUEOUS

Received Date: 11/19/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2,6-Dinitrotoluene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Fluoranthene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Fluorene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Hexachlorobenzene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Hexachlorobutadiene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Hexachloroethane	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Isophorone	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
1-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2-Methylnaphthalene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2-Methylphenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
3+4-Methylphenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
N-Nitrosodimethylamine	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Naphthalene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2-Nitroaniline	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
3-Nitroaniline	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
4-Nitroaniline	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Nitrobenzene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2-Nitrophenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
4-Nitrophenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Pentachlorophenol	ND	20		µg/L	1	11/24/2014 9:22:16 PM	16507
Phenanthrene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Phenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Pyrene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Pyridine	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/24/2014 9:22:16 PM	16507
Surr: 2-Fluorophenol	70.6	17.6-104		%REC	1	11/24/2014 9:22:16 PM	16507
Surr: Phenol-d5	63.6	17.7-89.9		%REC	1	11/24/2014 9:22:16 PM	16507
Surr: 2,4,6-Tribromophenol	98.0	16.3-122		%REC	1	11/24/2014 9:22:16 PM	16507
Surr: Nitrobenzene-d5	89.2	45.3-117		%REC	1	11/24/2014 9:22:16 PM	16507
Surr: 2-Fluorobiphenyl	88.0	43-113		%REC	1	11/24/2014 9:22:16 PM	16507
Surr: 4-Terphenyl-d14	91.3	47.6-122		%REC	1	11/24/2014 9:22:16 PM	16507

Refer to the QC Summary report and 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 greater than 2.
	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#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22857			RunNo: 22857					
Prep Date:		Analysis Date: 12/1/2014			SeqNo: 674626		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: R22857		RunNo: 22857					
Prep Date:			Analysis Date: 12/1/2014		SeqNo: 674627		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	0.47	0.0020	0.5000	0	94.6	85	115			
Calcium	50	1.0	50.00	0	99.2	85	115			
Chromium	0.47	0.0060	0.5000	0	93.8	85	115			
Copper	0.46	0.0060	0.5000	0	92.3	85	115			
Iron	0.47	0.020	0.5000	0	93.2	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.46	0.0020	0.5000	0	91.1	85	115			
Potassium	48	1.0	50.00	0	96.9	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Sodium	49	1.0	50.00	0	98.8	85	115			
Zinc	0.47	0.010	0.5000	0	94.6	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22857			RunNo: 22857					
Prep Date:		Analysis Date: 12/1/2014			SeqNo: 674628		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								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22857	RunNo:	22857					
Prep Date:		Analysis Date:	12/1/2014	SeqNo:	674628	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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:	R22857	RunNo:	22857					
Prep Date:		Analysis Date:	12/1/2014	SeqNo:	674629	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	0.49	0.0020	0.5000	0	97.6	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.48	0.020	0.5000	0	96.9	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.47	0.0020	0.5000	0	93.9	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Sodium	49	1.0	50.00	0	98.9	85	115			
Zinc	0.49	0.010	0.5000	0	97.3	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	MB-16624		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16624		RunNo: 22897					
Prep Date:	12/2/2014		Analysis Date: 12/3/2014		SeqNo: 676181		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-16624		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16624		RunNo: 22897					
Prep Date:	12/2/2014		Analysis Date: 12/3/2014		SeqNo: 676182		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	97.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.1	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.2	85	115			
Iron	0.49	0.020	0.5000	0	97.7	85	115			
Manganese	0.47	0.0020	0.5000	0	94.4	85	115			
Silver	0.11	0.0050	0.1000	0	107	85	115			
Zinc	0.48	0.010	0.5000	0	96.7	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	LCS		SampType: LCS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22933			RunNo: 22933				
Prep Date:			Analysis Date: 12/4/2014			SeqNo: 677289		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	0.024	0.0010	0.02500	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.025	0.0010	0.02500	0	99.9	85	115			

Sample ID	LCS		SampType: LCS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22933			RunNo: 22933				
Prep Date:			Analysis Date: 12/4/2014			SeqNo: 677290		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	0.024	0.0010	0.02500	0	96.7	85	115			
Selenium	0.024	0.0010	0.02500	0	95.5	85	115			
Uranium	0.023	0.0010	0.02500	0	92.2	85	115			

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: R22933			RunNo: 22933				
Prep Date:			Analysis Date: 12/4/2014			SeqNo: 677291		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: R22933			RunNo: 22933				
Prep Date:			Analysis Date: 12/4/2014			SeqNo: 677292		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	LLLCS-16624	SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID: 16624			RunNo: 22904					
Prep Date:	12/2/2014	Analysis Date: 12/3/2014			SeqNo: 676459		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	99.7	85	115			
Lead	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.027	0.0010	0.02500	0	110	85	115			

Sample ID	MB-16624	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 16624			RunNo: 22904					
Prep Date:	12/2/2014	Analysis Date: 12/3/2014			SeqNo: 676461		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	MB-16625	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	16625	RunNo:	22882					
Prep Date:	12/2/2014	Analysis Date:	12/2/2014	SeqNo:	675569	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-16625	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	16625	RunNo:	22882					
Prep Date:	12/2/2014	Analysis Date:	12/2/2014	SeqNo:	675570	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22742	RunNo:	22742					
Prep Date:		Analysis Date:	11/21/2014	SeqNo:	670973	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:	R22742	RunNo:	22742					
Prep Date:		Analysis Date:	11/21/2014	SeqNo:	670974	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	97.5	90	110			
Chloride	4.7	0.50	5.000	0	94.8	90	110			
Bromide	2.5	0.10	2.500	0	98.9	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.3	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22742	RunNo:	22742					
Prep Date:		Analysis Date:	11/21/2014	SeqNo:	671027	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:	R22742	RunNo:	22742					
Prep Date:		Analysis Date:	11/21/2014	SeqNo:	671028	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	4.7	0.50	5.000	0	93.3	90	110			
Bromide	2.3	0.10	2.500	0	90.9	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.5	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22874	RunNo:	22874					
Prep Date:		Analysis Date:	12/1/2014	SeqNo:	675189	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:	R22874	RunNo:	22874					
Prep Date:		Analysis Date:	12/1/2014	SeqNo:	675190	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	91.2	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.3	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	MB-16493		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16493		RunNo: 22660					
Prep Date:	11/20/2014		Analysis Date: 11/21/2014		SeqNo: 669374		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	0.87		1.000		87.2	59	141			

Sample ID	LCS-16493		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16493		RunNo: 22660					
Prep Date:	11/20/2014		Analysis Date: 11/21/2014		SeqNo: 669375		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	119	69.7	142			
Surr: DNOP	0.47		0.5000		93.2	59	141			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID B27	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R22770		RunNo: 22770							
Prep Date:	Analysis Date: 11/24/2014		SeqNo: 671706		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		91.5	80	120			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R22770		RunNo: 22770							
Prep Date:	Analysis Date: 11/24/2014		SeqNo: 671707		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	92.5	80	120			
Surr: BFB	20		20.00		98.4	80	120			

Sample ID 1411861-001BMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: MKTF-22	Batch ID: R22770		RunNo: 22770							
Prep Date:	Analysis Date: 11/25/2014		SeqNo: 671710		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	13	0.50	5.000	6.792	119	70.4	127			
Surr: BFB	210		200.0		104	80	120			

Sample ID 1411861-001BMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: MKTF-22	Batch ID: R22770		RunNo: 22770							
Prep Date:	Analysis Date: 11/25/2014		SeqNo: 671712		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	12	0.50	5.000	6.792	105	70.4	127	5.34	20	
Surr: BFB	210		200.0		104	80	120	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671611		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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671611		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		94.1	70	130			
Surr: 4-Bromofluorobenzene	14		10.00		141	70	130			S
Surr: Dibromofluoromethane	8.1		10.00		80.9	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671614		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	19	1.0	20.00	0	94.6	80	120			
Chlorobenzene	18	1.0	20.00	0	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	100ng lcs		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R22767			RunNo: 22767				
Prep Date:	Analysis Date: 11/24/2014			SeqNo: 671614		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	97.0	82.6	131			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		120	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.4	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID	100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671653		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	22	1.0	20.00	0	108	80	120			
Chlorobenzene	19	1.0	20.00	0	97.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.0	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	93.7	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID	b5	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22767			RunNo: 22767					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671935		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.	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 greater than 2.
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#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	b5	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22767	RunNo:	22767					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	671935	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.
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	b5	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R22767		RunNo:	22767				
Prep Date:		Analysis Date:	11/24/2014		SeqNo:	671935	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	9.4		10.00		94.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.4	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			

Sample ID	5mL rb	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R22801		RunNo:	22801				
Prep Date:		Analysis Date:	11/25/2014		SeqNo:	672809	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								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22801			RunNo: 22801					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672809		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22801			RunNo: 22801					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672809		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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		91.9	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		124	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22801			RunNo: 22801					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672811		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	21	1.0	20.00	0	107	80	120			
Chlorobenzene	19	1.0	20.00	0	93.7	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.7	82.6	131			
Trichloroethene (TCE)	18	1.0	20.00	0	92.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.6	70	130			
Surr: Toluene-d8	10		10.00		103	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	mb-16507	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	16507	RunNo:	22768					
Prep Date:	11/21/2014	Analysis Date:	11/24/2014	SeqNo:	671719	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	14	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	mb-16507	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	16507	RunNo:	22768					
Prep Date:	11/21/2014	Analysis Date:	11/24/2014	SeqNo:	671719	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		78.3	17.6	104			
Surr: Phenol-d5	160		200.0		81.6	17.7	89.9			
Surr: 2,4,6-Tribromophenol	180		200.0		89.3	16.3	122			
Surr: Nitrobenzene-d5	80		100.0		80.5	45.3	117			
Surr: 2-Fluorobiphenyl	80		100.0		79.6	43	113			
Surr: 4-Terphenyl-d14	87		100.0		87.4	47.6	122			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: 2014 4th QTR MKTF Wells

Sample ID	lcs-16507		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 16507		RunNo: 22768					
Prep Date:	11/21/2014		Analysis Date: 11/24/2014		SeqNo: 671720		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	78.9	47.9	114			
4-Chloro-3-methylphenol	180	10	200.0	0	89.2	51.7	122			
2-Chlorophenol	150	10	200.0	0	77.3	40.7	113			
1,4-Dichlorobenzene	66	10	100.0	0	66.0	39.6	99.9			
2,4-Dinitrotoluene	62	10	100.0	0	61.8	40.8	113			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	51.2	111			
4-Nitrophenol	160	10	200.0	0	80.2	15.7	86.9			
Pentachlorophenol	140	20	200.0	0	68.7	21.6	104			
Phenol	170	10	200.0	0	83.3	28.6	71.7			S
Pyrene	81	10	100.0	0	81.0	54.2	128			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.1	40.9	101			
Surr: 2-Fluorophenol	140		200.0		70.0	17.6	104			
Surr: Phenol-d5	150		200.0		75.8	17.7	89.9			
Surr: 2,4,6-Tribromophenol	180		200.0		88.2	16.3	122			
Surr: Nitrobenzene-d5	80		100.0		79.8	45.3	117			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	43	113			
Surr: 4-Terphenyl-d14	90		100.0		89.5	47.6	122			

Sample ID	lcsd-16507		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16507		RunNo: 22768					
Prep Date:	11/21/2014		Analysis Date: 11/24/2014		SeqNo: 671721		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	90	10	100.0	0	89.8	47.9	114	13.0	27.2	
4-Chloro-3-methylphenol	190	10	200.0	0	95.3	51.7	122	6.67	25.9	
2-Chlorophenol	180	10	200.0	0	90.7	40.7	113	15.9	22.5	
1,4-Dichlorobenzene	81	10	100.0	0	80.5	39.6	99.9	19.9	24.6	
2,4-Dinitrotoluene	79	10	100.0	0	79.1	40.8	113	24.5	25.3	
N-Nitrosodi-n-propylamine	92	10	100.0	0	91.5	51.2	111	15.7	23.6	
4-Nitrophenol	180	10	200.0	0	91.4	15.7	86.9	13.1	34.7	S
Pentachlorophenol	160	20	200.0	0	78.2	21.6	104	12.9	32.8	
Phenol	190	10	200.0	0	96.4	28.6	71.7	14.5	25.5	S
Pyrene	93	10	100.0	0	93.4	54.2	128	14.3	31.4	
1,2,4-Trichlorobenzene	80	10	100.0	0	80.1	40.9	101	11.9	25.9	
Surr: 2-Fluorophenol	160		200.0		79.0	17.6	104	0	0	
Surr: Phenol-d5	170		200.0		83.5	17.7	89.9	0	0	
Surr: 2,4,6-Tribromophenol	190		200.0		93.6	16.3	122	0	0	
Surr: Nitrobenzene-d5	81		100.0		81.2	45.3	117	0	0	
Surr: 2-Fluorobiphenyl	80		100.0		80.4	43	113	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 greater than 2.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411861

11-Dec-14

Client: Western Refining Southwest, Gallup**Project:** 2014 4th QTR MKTF Wells

Sample ID	lcsd-16507		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16507		RunNo: 22768					
Prep Date:	11/21/2014		Analysis Date: 11/24/2014		SeqNo: 671721		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	93		100.0		93.3	47.6	122	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 greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411861

RcptNo: 1

Received by/date:

CS 11/19/14

Logged By: Ashley Gallegos

11/19/2014 4:00:00 PM

Ag

Completed By: Ashley Gallegos

11/20/2014 10:08:00 AM

Ag

Reviewed By:

mg 11/20/14

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 ☐ 11/20/14
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: 21
(3 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 HNO_3 to 001F, 003F, 004F for Acceptable pH. For Total Metals analysis: Added 1 mL HNO_3 to 002A for acceptable pH. Held in login for 24 hours after preservation.

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:
☒ Standard ☐ Rush

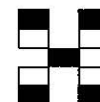
Project Name:
2014 4th QTR MKTF WELLS
(MKTF - 23, 33, 32, 31, 25)

Project Manager:
C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°C



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8260+MTBE	8015B EXTENDED	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions											Air Bubbles (Y or N)			
11/17/2014	1300	AQUEOUS	MKTF-22	MISC	MISC	-001	X	X	X	X	X	X														
11/17/2014	1155	AQUEOUS	MKTF-23	MISC	MISC	-002	X	X	X	X	X	X														
11/17/2014	1115	AQUEOUS	MKTF-30	MISC	MISC	-003	X	X	X	X	X	X														
11/17/2014	1410	AQUEOUS	MKTF-31	MISC	MISC	-004	X	X	X	X	X	X														
11/17/2014	1350	AQUEOUS	MKTF-32	MISC	MISC	-005	X	X	X	X	X	X														
11/17/2014	1330	AQUEOUS	MKTF-33	MISC	MISC	-006	X	X	X	X	X	X														
11/17/2014	1450	AQUEOUS	MKTF-34	MISC	MISC	-007	X	X	X	X	X	X														
11/17/2014		AQUEOUS	TRIP BLANK	3-40ML VOAS	HCL	-008	X																			
11/17/2014	800	AQUEOUS	FIELD BLANK	3-40ML VOAS	HCL	-009	X																			
11/17/2014		AQUEOUS	BD-MKTF-11-17-14	1L AMBER	NONE	-010			X																	
Date: 11/19/2014	Time: 1130	Relinquished by: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Date: 11/19/14	Time: 2:00																	Remarks:		
Date: 11/19/14	Time: 400	Relinquished by: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Date: 11/19/14	Time: 1600																			

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

July 08, 2014

Cheryl Johnson

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

RE: 2014 2nd Quarter

OrderNo.: 1406364

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 6/6/2014 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#: 1406364
Date: 7/8/2014

CLIENT: Western Refining Southwest, Gallup
Project: 2014 2nd Quarter

Analytical Notes for EPA Method 8260 and 8015 GRO:
Sample "MKTF-17" was analyzed with headspace.

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:35:00 AM

Lab ID: 1406364-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	510	10		mg/L	10	6/11/2014 11:08:45 PM	13583
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	6/11/2014 11:08:45 PM	13583
Surr: DNOP	0	62.7-145	S	%REC	10	6/11/2014 11:08:45 PM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.60	0.10		mg/L	1	6/9/2014 12:44:07 PM	R19161
Chloride	400	10		mg/L	20	6/9/2014 12:56:32 PM	R19161
Bromide	0.96	0.10		mg/L	1	6/9/2014 12:44:07 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 12:44:07 PM	R19161
Sulfate	0.58	0.50		mg/L	1	6/9/2014 12:44:07 PM	R19161
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/9/2014 10:00:18 PM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.4	0.010		mg/L	5	6/12/2014 4:31:40 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 4:29:57 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 4:29:57 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 4:29:57 PM	R19227
Iron	4.7	0.10	*	mg/L	5	6/12/2014 4:31:40 PM	R19227
Manganese	1.7	0.010	*	mg/L	5	6/12/2014 4:31:40 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 4:29:57 PM	R19227
Zinc	0.028	0.010		mg/L	1	6/12/2014 4:29:57 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	4.7	0.010	*	mg/L	5	6/18/2014 12:48:55 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:07:40 PM	13717
Calcium	230	5.0		mg/L	5	6/18/2014 12:48:55 PM	13717
Chromium	0.035	0.0060		mg/L	1	6/17/2014 2:07:40 PM	13717
Copper	0.038	0.0060		mg/L	1	6/17/2014 2:07:40 PM	13717
Iron	35	1.0	*	mg/L	50	6/18/2014 12:50:25 PM	13717
Magnesium	43	1.0		mg/L	1	6/18/2014 12:47:26 PM	13717
Manganese	4.1	0.010	*	mg/L	5	6/18/2014 12:48:55 PM	13717
Potassium	7.1	1.0		mg/L	1	6/18/2014 12:47:26 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:44:46 PM	13717
Sodium	440	5.0		mg/L	5	6/18/2014 5:46:30 PM	13717
Zinc	0.078	0.010		mg/L	1	6/18/2014 12:47:26 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 3:43:13 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 3:43:13 PM	R19364
Selenium	0.013	0.0050		mg/L	5	6/20/2014 3:38:31 PM	R19449
Uranium	ND	0.010		mg/L	10	6/25/2014 12:25:45 PM	R19508

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:35:00 AM

Lab ID: 1406364-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0070	0.0050		mg/L	5	6/17/2014 3:59:35 PM	13717
Lead	0.074	0.0050	*	mg/L	5	6/17/2014 3:59:35 PM	13717
Selenium	0.0091	0.0050		mg/L	5	6/17/2014 3:59:35 PM	13717
Uranium	ND	0.0050		mg/L	5	6/17/2014 3:59:35 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 12:18:42 PM	13740
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 8:13:29 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597

Refer to the QC Summary report and 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 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:35:00 AM

Lab ID: 1406364-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 8:13:29 PM	13597
2,4-Dimethylphenol	50	10		µg/L	1	6/10/2014 8:13:29 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 8:13:29 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 8:13:29 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Fluorene	20	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
1-Methylnaphthalene	310	20		µg/L	2	6/12/2014 12:42:10 PM	13597
2-Methylnaphthalene	310	20		µg/L	2	6/12/2014 12:42:10 PM	13597
2-Methylphenol	60	20		µg/L	1	6/10/2014 8:13:29 PM	13597
3+4-Methylphenol	31	10		µg/L	1	6/10/2014 8:13:29 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Naphthalene	310	20		µg/L	2	6/12/2014 12:42:10 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 8:13:29 PM	13597
Phenanthrene	28	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Phenol	19	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597

Refer to the QC Summary report and 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 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:35:00 AM

Lab ID: 1406364-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 8:13:29 PM	13597
Surr: 2-Fluorophenol	18.4	12.1-85.8		%REC	1	6/10/2014 8:13:29 PM	13597
Surr: Phenol-d5	35.0	17.7-65.8		%REC	1	6/10/2014 8:13:29 PM	13597
Surr: 2,4,6-Tribromophenol	60.4	26-138		%REC	1	6/10/2014 8:13:29 PM	13597
Surr: Nitrobenzene-d5	83.1	47.5-119		%REC	1	6/10/2014 8:13:29 PM	13597
Surr: 2-Fluorobiphenyl	58.7	48.1-106		%REC	1	6/10/2014 8:13:29 PM	13597
Surr: 4-Terphenyl-d14	66.6	44-113		%REC	1	6/10/2014 8:13:29 PM	13597
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
Benzene	8700	500		µg/L	500	6/13/2014 3:58:45 PM	R19253
Toluene	7100	500		µg/L	500	6/13/2014 3:58:45 PM	R19253
Ethylbenzene	920	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Methyl tert-butyl ether (MTBE)	420	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2,4-Trimethylbenzene	1100	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,3,5-Trimethylbenzene	270	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Naphthalene	300	100		µg/L	50	6/11/2014 6:33:26 PM	R19202
1-Methylnaphthalene	ND	200		µg/L	50	6/11/2014 6:33:26 PM	R19202
2-Methylnaphthalene	ND	200		µg/L	50	6/11/2014 6:33:26 PM	R19202
Acetone	ND	500		µg/L	50	6/11/2014 6:33:26 PM	R19202
Bromobenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Bromodichloromethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Bromoform	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Bromomethane	ND	150		µg/L	50	6/11/2014 6:33:26 PM	R19202
2-Butanone	ND	500		µg/L	50	6/11/2014 6:33:26 PM	R19202
Carbon disulfide	ND	500		µg/L	50	6/11/2014 6:33:26 PM	R19202
Carbon Tetrachloride	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Chlorobenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Chloroethane	ND	100		µg/L	50	6/11/2014 6:33:26 PM	R19202
Chloroform	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Chloromethane	ND	150		µg/L	50	6/11/2014 6:33:26 PM	R19202
2-Chlorotoluene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
4-Chlorotoluene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
cis-1,2-DCE	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
cis-1,3-Dichloropropene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	6/11/2014 6:33:26 PM	R19202
Dibromochloromethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Dibromomethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2-Dichlorobenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202

Refer to the QC Summary report and 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 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:35:00 AM

Lab ID: 1406364-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
1,3-Dichlorobenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,4-Dichlorobenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Dichlorodifluoromethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,1-Dichloroethane	94	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,1-Dichloroethene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2-Dichloropropane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,3-Dichloropropane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
2,2-Dichloropropane	ND	100		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,1-Dichloropropene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Hexachlorobutadiene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
2-Hexanone	ND	500		µg/L	50	6/11/2014 6:33:26 PM	R19202
Isopropylbenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
4-Isopropyltoluene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
4-Methyl-2-pentanone	ND	500		µg/L	50	6/11/2014 6:33:26 PM	R19202
Methylene Chloride	ND	150		µg/L	50	6/11/2014 6:33:26 PM	R19202
n-Butylbenzene	ND	150		µg/L	50	6/11/2014 6:33:26 PM	R19202
n-Propylbenzene	140	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
sec-Butylbenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Styrene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
tert-Butylbenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	6/11/2014 6:33:26 PM	R19202
Tetrachloroethene (PCE)	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
trans-1,2-DCE	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
trans-1,3-Dichloropropene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2,3-Trichlorobenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2,4-Trichlorobenzene	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,1,1-Trichloroethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,1,2-Trichloroethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Trichloroethene (TCE)	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Trichlorofluoromethane	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
1,2,3-Trichloropropane	ND	100		µg/L	50	6/11/2014 6:33:26 PM	R19202
Vinyl chloride	ND	50		µg/L	50	6/11/2014 6:33:26 PM	R19202
Xylenes, Total	4300	75		µg/L	50	6/11/2014 6:33:26 PM	R19202
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%REC	50	6/11/2014 6:33:26 PM	R19202
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	50	6/11/2014 6:33:26 PM	R19202
Surr: Dibromofluoromethane	108	70-130		%REC	50	6/11/2014 6:33:26 PM	R19202
Surr: Toluene-d8	98.9	70-130		%REC	50	6/11/2014 6:33:26 PM	R19202

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-1

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:35:00 AM

Lab ID: 1406364-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE				Analyst: cadg			
Gasoline Range Organics (GRO)	50	2.5		mg/L	50	6/11/2014 6:33:26 PM	R19202
Surr: BFB	96.8	70-130		%REC	50	6/11/2014 6:33:26 PM	R19202

Refer to the QC Summary report and 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 7 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:30:00 AM

Lab ID: 1406364-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/11/2014 8:45:09 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 8:45:09 AM	13583
Surr: DNOP	97.9	62.7-145		%REC	1	6/11/2014 8:45:09 AM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.76	0.10		mg/L	1	6/9/2014 1:08:57 PM	R19161
Chloride	750	50		mg/L	100	6/11/2014 3:07:44 AM	R19191
Bromide	0.46	0.10		mg/L	1	6/9/2014 1:08:57 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 1:08:57 PM	R19161
Sulfate	200	10		mg/L	20	6/9/2014 1:21:22 PM	R19161
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/9/2014 10:12:43 PM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	6/12/2014 4:42:19 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 4:42:19 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 4:42:19 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 4:42:19 PM	R19227
Iron	0.34	0.020	*	mg/L	1	6/12/2014 4:42:19 PM	R19227
Manganese	0.56	0.0020	*	mg/L	1	6/12/2014 4:42:19 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 4:42:19 PM	R19227
Zinc	0.010	0.010		mg/L	1	6/12/2014 4:42:19 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.20	0.0020		mg/L	1	6/17/2014 2:09:31 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:09:31 PM	13717
Calcium	110	5.0		mg/L	5	6/18/2014 12:56:22 PM	13717
Chromium	ND	0.0060		mg/L	1	6/17/2014 2:09:31 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 2:09:31 PM	13717
Iron	4.2	0.20	*	mg/L	10	6/18/2014 1:00:52 PM	13717
Magnesium	17	1.0		mg/L	1	6/17/2014 2:09:31 PM	13717
Manganese	0.70	0.010	*	mg/L	5	6/18/2014 12:56:22 PM	13717
Potassium	9.2	1.0		mg/L	1	6/17/2014 2:09:31 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:53:29 PM	13717
Sodium	720	10		mg/L	10	6/18/2014 5:58:57 PM	13717
Zinc	0.017	0.010		mg/L	1	6/18/2014 12:52:00 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 3:48:13 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 3:48:13 PM	R19364
Selenium	0.012	0.0050		mg/L	5	6/20/2014 3:41:33 PM	R19449
Uranium	0.056	0.010	*	mg/L	10	6/25/2014 12:28:09 PM	R19508

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:30:00 AM

Lab ID: 1406364-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 4:04:34 PM	13717
Lead	ND	0.0050		mg/L	5	6/17/2014 4:04:34 PM	13717
Selenium	0.0069	0.0050		mg/L	5	6/17/2014 4:04:34 PM	13717
Uranium	0.056	0.0050	*	mg/L	5	6/17/2014 4:04:34 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:23:15 AM	13740
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 8:42:40 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:30:00 AM

Lab ID: 1406364-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 8:42:40 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 8:42:40 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 8:42:40 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
1-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 8:42:40 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Naphthalene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 8:42:40 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:30:00 AM

Lab ID: 1406364-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 8:42:40 PM	13597
Surr: 2-Fluorophenol	34.1	12.1-85.8		%REC	1	6/10/2014 8:42:40 PM	13597
Surr: Phenol-d5	31.7	17.7-65.8		%REC	1	6/10/2014 8:42:40 PM	13597
Surr: 2,4,6-Tribromophenol	61.0	26-138		%REC	1	6/10/2014 8:42:40 PM	13597
Surr: Nitrobenzene-d5	68.7	47.5-119		%REC	1	6/10/2014 8:42:40 PM	13597
Surr: 2-Fluorobiphenyl	65.2	48.1-106		%REC	1	6/10/2014 8:42:40 PM	13597
Surr: 4-Terphenyl-d14	58.7	44-113		%REC	1	6/10/2014 8:42:40 PM	13597
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	230	10		µg/L	10	6/13/2014 4:27:30 PM	R19253
Toluene	3.6	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Ethylbenzene	22	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Methyl tert-butyl ether (MTBE)	42	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2,4-Trimethylbenzene	31	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,3,5-Trimethylbenzene	1.9	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2-Dichloroethane (EDC)	8.1	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Naphthalene	4.9	2.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
2-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Acetone	12	10		µg/L	1	6/11/2014 8:00:04 PM	R19202
Bromobenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Bromodichloromethane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Bromoform	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Bromomethane	ND	3.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
2-Butanone	ND	10		µg/L	1	6/11/2014 8:00:04 PM	R19202
Carbon disulfide	ND	10		µg/L	1	6/11/2014 8:00:04 PM	R19202
Carbon Tetrachloride	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Chlorobenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Chloroethane	ND	2.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Chloroform	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Chloromethane	ND	3.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
2-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
4-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
cis-1,2-DCE	11	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Dibromochloromethane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Dibromomethane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202

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Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
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	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:30:00 AM

Lab ID: 1406364-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,1-Dichloroethane	70	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,1-Dichloroethene	41	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,3-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
2,2-Dichloropropane	ND	2.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,1-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Hexachlorobutadiene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
2-Hexanone	ND	10		µg/L	1	6/11/2014 8:00:04 PM	R19202
Isopropylbenzene	3.1	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
4-Isopropyltoluene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
4-Methyl-2-pentanone	ND	10		µg/L	1	6/11/2014 8:00:04 PM	R19202
Methylene Chloride	ND	3.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
n-Butylbenzene	ND	3.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
n-Propylbenzene	9.0	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
sec-Butylbenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Styrene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
tert-Butylbenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
trans-1,2-DCE	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,1,1-Trichloroethane	3.5	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,1,2-Trichloroethane	1.2	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Trichloroethene (TCE)	4.1	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Trichlorofluoromethane	ND	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Vinyl chloride	1.0	1.0		µg/L	1	6/11/2014 8:00:04 PM	R19202
Xylenes, Total	34	1.5		µg/L	1	6/11/2014 8:00:04 PM	R19202
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	6/11/2014 8:00:04 PM	R19202
Surr: 4-Bromofluorobenzene	88.7	70-130		%REC	1	6/11/2014 8:00:04 PM	R19202
Surr: Dibromofluoromethane	100	70-130		%REC	1	6/11/2014 8:00:04 PM	R19202
Surr: Toluene-d8	103	70-130		%REC	1	6/11/2014 8:00:04 PM	R19202

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-2

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 11:30:00 AM

Lab ID: 1406364-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: cadg	
Gasoline Range Organics (GRO)	1.5	0.050		mg/L	1	6/11/2014 8:00:04 PM	R19202
Surr: BFB	94.8	70-130		%REC	1	6/11/2014 8:00:04 PM	R19202

Refer to the QC Summary report and 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 13 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 4:10:00 PM

Lab ID: 1406364-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	2.9	1.0		mg/L	1	6/11/2014 11:38:29 PM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 11:38:29 PM	13583
Surr: DNOP	114	62.7-145		%REC	1	6/11/2014 11:38:29 PM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.70	0.10		mg/L	1	6/9/2014 1:33:46 PM	R19161
Chloride	190	10		mg/L	20	6/9/2014 1:46:10 PM	R19161
Bromide	1.8	0.10		mg/L	1	6/9/2014 1:33:46 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 1:33:46 PM	R19161
Sulfate	6.8	0.50		mg/L	1	6/9/2014 1:33:46 PM	R19161
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/9/2014 10:25:07 PM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.9	0.010		mg/L	5	6/12/2014 4:47:59 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 4:46:18 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 4:46:18 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 4:46:18 PM	R19227
Iron	2.5	0.10	*	mg/L	5	6/12/2014 4:47:59 PM	R19227
Manganese	1.4	0.010	*	mg/L	5	6/12/2014 4:47:59 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 4:46:18 PM	R19227
Zinc	ND	0.010		mg/L	1	6/12/2014 4:46:18 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.4	0.010		mg/L	5	6/18/2014 1:22:59 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:23:44 PM	13717
Calcium	120	5.0		mg/L	5	6/18/2014 1:22:59 PM	13717
Chromium	0.0085	0.0060		mg/L	1	6/17/2014 2:23:44 PM	13717
Copper	0.013	0.0060		mg/L	1	6/17/2014 2:23:44 PM	13717
Iron	7.9	0.20	*	mg/L	10	6/18/2014 1:24:23 PM	13717
Magnesium	31	1.0		mg/L	1	6/17/2014 2:23:44 PM	13717
Manganese	2.1	0.010	*	mg/L	5	6/18/2014 1:22:59 PM	13717
Potassium	5.0	1.0		mg/L	1	6/17/2014 2:23:44 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 6:00:51 PM	13717
Sodium	340	5.0		mg/L	5	6/18/2014 6:02:31 PM	13717
Zinc	0.020	0.010		mg/L	1	6/18/2014 1:21:31 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0078	0.0050		mg/L	5	6/18/2014 3:53:12 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 3:53:12 PM	R19364
Selenium	0.022	0.0050		mg/L	5	6/20/2014 3:54:57 PM	R19449
Uranium	ND	0.010		mg/L	10	6/25/2014 12:30:34 PM	R19508

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	E	Value 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 4:10:00 PM

Lab ID: 1406364-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0061	0.0050		mg/L	5	6/17/2014 4:09:33 PM	13717
Lead	0.013	0.0050		mg/L	5	6/17/2014 4:09:33 PM	13717
Selenium	0.013	0.0050		mg/L	5	6/17/2014 4:09:33 PM	13717
Uranium	0.0090	0.0050		mg/L	5	6/17/2014 4:09:33 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:25:05 AM	13740
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Benzoic acid	21	20		µg/L	1	6/10/2014 9:11:48 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Carbazole	11	10		µg/L	1	6/10/2014 9:11:48 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 4:10:00 PM

Lab ID: 1406364-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 9:11:48 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 9:11:48 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 9:11:48 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
1-Methylnaphthalene	110	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2-Methylnaphthalene	140	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 9:11:48 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Naphthalene	240	20		µg/L	2	6/12/2014 1:11:20 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 9:11:48 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 4:10:00 PM

Lab ID: 1406364-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 9:11:48 PM	13597
Surr: 2-Fluorophenol	39.3	12.1-85.8		%REC	1	6/10/2014 9:11:48 PM	13597
Surr: Phenol-d5	39.7	17.7-65.8		%REC	1	6/10/2014 9:11:48 PM	13597
Surr: 2,4,6-Tribromophenol	75.9	26-138		%REC	1	6/10/2014 9:11:48 PM	13597
Surr: Nitrobenzene-d5	74.9	47.5-119		%REC	1	6/10/2014 9:11:48 PM	13597
Surr: 2-Fluorobiphenyl	74.5	48.1-106		%REC	1	6/10/2014 9:11:48 PM	13597
Surr: 4-Terphenyl-d14	70.0	44-113		%REC	1	6/10/2014 9:11:48 PM	13597
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	670	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Toluene	19	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Ethylbenzene	570	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Methyl tert-butyl ether (MTBE)	1800	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2,4-Trimethylbenzene	270	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,3,5-Trimethylbenzene	49	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Naphthalene	310	20		µg/L	10	6/11/2014 9:26:51 PM	R19202
1-Methylnaphthalene	130	40		µg/L	10	6/11/2014 9:26:51 PM	R19202
2-Methylnaphthalene	170	40		µg/L	10	6/11/2014 9:26:51 PM	R19202
Acetone	ND	100		µg/L	10	6/11/2014 9:26:51 PM	R19202
Bromobenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Bromodichloromethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Bromoform	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Bromomethane	ND	30		µg/L	10	6/11/2014 9:26:51 PM	R19202
2-Butanone	ND	100		µg/L	10	6/11/2014 9:26:51 PM	R19202
Carbon disulfide	ND	100		µg/L	10	6/11/2014 9:26:51 PM	R19202
Carbon Tetrachloride	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Chlorobenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Chloroethane	ND	20		µg/L	10	6/11/2014 9:26:51 PM	R19202
Chloroform	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Chloromethane	ND	30		µg/L	10	6/11/2014 9:26:51 PM	R19202
2-Chlorotoluene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
4-Chlorotoluene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
cis-1,2-DCE	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/11/2014 9:26:51 PM	R19202
Dibromochloromethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Dibromomethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2-Dichlorobenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 1406364

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 4:10:00 PM

Lab ID: 1406364-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,3-Dichlorobenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,4-Dichlorobenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Dichlorodifluoromethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,1-Dichloroethane	11	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,1-Dichloroethene	21	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2-Dichloropropane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,3-Dichloropropane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
2,2-Dichloropropane	ND	20		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,1-Dichloropropene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Hexachlorobutadiene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
2-Hexanone	ND	100		µg/L	10	6/11/2014 9:26:51 PM	R19202
Isopropylbenzene	20	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
4-Isopropyltoluene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
4-Methyl-2-pentanone	ND	100		µg/L	10	6/11/2014 9:26:51 PM	R19202
Methylene Chloride	ND	30		µg/L	10	6/11/2014 9:26:51 PM	R19202
n-Butylbenzene	ND	30		µg/L	10	6/11/2014 9:26:51 PM	R19202
n-Propylbenzene	46	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
sec-Butylbenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Styrene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
tert-Butylbenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/11/2014 9:26:51 PM	R19202
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
trans-1,2-DCE	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,1,1-Trichloroethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,1,2-Trichloroethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Trichloroethene (TCE)	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Trichlorofluoromethane	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
1,2,3-Trichloropropane	ND	20		µg/L	10	6/11/2014 9:26:51 PM	R19202
Vinyl chloride	ND	10		µg/L	10	6/11/2014 9:26:51 PM	R19202
Xylenes, Total	680	15		µg/L	10	6/11/2014 9:26:51 PM	R19202
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%REC	10	6/11/2014 9:26:51 PM	R19202
Surr: 4-Bromofluorobenzene	90.8	70-130		%REC	10	6/11/2014 9:26:51 PM	R19202
Surr: Dibromofluoromethane	107	70-130		%REC	10	6/11/2014 9:26:51 PM	R19202
Surr: Toluene-d8	102	70-130		%REC	10	6/11/2014 9:26:51 PM	R19202

EPA METHOD 8015D: GASOLINE RANGE

Analyst: cadg

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 4:10:00 PM

Lab ID: 1406364-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: cadg	
Gasoline Range Organics (GRO)	8.2	0.50		mg/L	10	6/11/2014 9:26:51 PM	R19202
Surr: BFB	96.5	70-130		%REC	10	6/11/2014 9:26:51 PM	R19202

Refer to the QC Summary report and 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 19 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 5:30:00 PM

Lab ID: 1406364-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	2.7	1.0		mg/L	1	6/12/2014 12:08:17 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2014 12:08:17 AM	13583
Surr: DNOP	117	62.7-145		%REC	1	6/12/2014 12:08:17 AM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.43	0.10		mg/L	1	6/9/2014 1:58:34 PM	R19161
Chloride	180	10		mg/L	20	6/9/2014 2:10:58 PM	R19161
Bromide	1.1	0.10		mg/L	1	6/9/2014 1:58:34 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 1:58:34 PM	R19161
Sulfate	78	10		mg/L	20	6/9/2014 2:10:58 PM	R19161
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/9/2014 10:37:31 PM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.44	0.0020		mg/L	1	6/12/2014 4:49:51 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 4:49:51 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 4:49:51 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 4:49:51 PM	R19227
Iron	3.4	0.10	*	mg/L	5	6/12/2014 4:51:41 PM	R19227
Manganese	3.6	0.010	*	mg/L	5	6/12/2014 4:51:41 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 4:49:51 PM	R19227
Zinc	ND	0.010		mg/L	1	6/12/2014 4:49:51 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.58	0.0020		mg/L	1	6/17/2014 2:25:36 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:25:36 PM	13717
Calcium	150	5.0		mg/L	5	6/18/2014 1:27:27 PM	13717
Chromium	ND	0.0060		mg/L	1	6/17/2014 2:25:36 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 2:25:36 PM	13717
Iron	6.7	0.20	*	mg/L	10	6/18/2014 1:28:51 PM	13717
Magnesium	33	1.0		mg/L	1	6/17/2014 2:25:36 PM	13717
Manganese	3.8	0.010	*	mg/L	5	6/18/2014 1:27:27 PM	13717
Potassium	3.1	1.0		mg/L	1	6/17/2014 2:25:36 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 6:04:20 PM	13717
Sodium	220	5.0		mg/L	5	6/18/2014 6:05:59 PM	13717
Zinc	0.015	0.010		mg/L	1	6/18/2014 1:25:59 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 3:58:11 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 3:58:11 PM	R19364
Selenium	0.014	0.0050		mg/L	5	6/20/2014 3:57:59 PM	R19449
Uranium	ND	0.010		mg/L	10	6/25/2014 12:37:52 PM	R19508

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 5:30:00 PM

Lab ID: 1406364-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 4:14:33 PM	13717
Lead	0.0058	0.0050		mg/L	5	6/17/2014 4:14:33 PM	13717
Selenium	0.0073	0.0050		mg/L	5	6/17/2014 4:14:33 PM	13717
Uranium	0.0060	0.0050		mg/L	5	6/17/2014 4:14:33 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:26:56 AM	13740
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 9:40:43 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Carbazole	10	10		µg/L	1	6/10/2014 9:40:43 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 5:30:00 PM

Lab ID: 1406364-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 9:40:43 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 9:40:43 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 9:40:43 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
1-Methylnaphthalene	58	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2-Methylnaphthalene	14	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 9:40:43 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Naphthalene	41	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 9:40:43 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 5:30:00 PM

Lab ID: 1406364-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 9:40:43 PM	13597
Surr: 2-Fluorophenol	26.6	12.1-85.8		%REC	1	6/10/2014 9:40:43 PM	13597
Surr: Phenol-d5	35.0	17.7-65.8		%REC	1	6/10/2014 9:40:43 PM	13597
Surr: 2,4,6-Tribromophenol	30.8	26-138		%REC	1	6/10/2014 9:40:43 PM	13597
Surr: Nitrobenzene-d5	78.9	47.5-119		%REC	1	6/10/2014 9:40:43 PM	13597
Surr: 2-Fluorobiphenyl	75.5	48.1-106		%REC	1	6/10/2014 9:40:43 PM	13597
Surr: 4-Terphenyl-d14	72.3	44-113		%REC	1	6/10/2014 9:40:43 PM	13597
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	1300	100		µg/L	100	6/13/2014 4:56:17 PM	R19253
Toluene	52	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Ethylbenzene	200	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Methyl tert-butyl ether (MTBE)	1200	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2,4-Trimethylbenzene	83	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Naphthalene	68	20		µg/L	10	6/12/2014 12:48:19 AM	R19202
1-Methylnaphthalene	89	40		µg/L	10	6/12/2014 12:48:19 AM	R19202
2-Methylnaphthalene	ND	40		µg/L	10	6/12/2014 12:48:19 AM	R19202
Acetone	ND	100		µg/L	10	6/12/2014 12:48:19 AM	R19202
Bromobenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Bromodichloromethane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Bromoform	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Bromomethane	ND	30		µg/L	10	6/12/2014 12:48:19 AM	R19202
2-Butanone	ND	100		µg/L	10	6/12/2014 12:48:19 AM	R19202
Carbon disulfide	ND	100		µg/L	10	6/12/2014 12:48:19 AM	R19202
Carbon Tetrachloride	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Chlorobenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Chloroethane	ND	20		µg/L	10	6/12/2014 12:48:19 AM	R19202
Chloroform	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Chloromethane	ND	30		µg/L	10	6/12/2014 12:48:19 AM	R19202
2-Chlorotoluene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
4-Chlorotoluene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
cis-1,2-DCE	14	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/12/2014 12:48:19 AM	R19202
Dibromochloromethane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Dibromomethane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2-Dichlorobenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**Date Reported: **7/8/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** MKTF-9**Project:** 2014 2nd Quarter**Collection Date:** 6/5/2014 5:30:00 PM**Lab ID:** 1406364-004**Matrix:** AQUEOUS**Received Date:** 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
1,3-Dichlorobenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,4-Dichlorobenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Dichlorodifluoromethane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,1-Dichloroethane	26	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,1-Dichloroethene	41	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2-Dichloropropane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,3-Dichloropropane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
2,2-Dichloropropane	ND	20		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,1-Dichloropropene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Hexachlorobutadiene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
2-Hexanone	ND	100		µg/L	10	6/12/2014 12:48:19 AM	R19202
Isopropylbenzene	17	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
4-Isopropyltoluene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
4-Methyl-2-pentanone	ND	100		µg/L	10	6/12/2014 12:48:19 AM	R19202
Methylene Chloride	ND	30		µg/L	10	6/12/2014 12:48:19 AM	R19202
n-Butylbenzene	ND	30		µg/L	10	6/12/2014 12:48:19 AM	R19202
n-Propylbenzene	33	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
sec-Butylbenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Styrene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
tert-Butylbenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/12/2014 12:48:19 AM	R19202
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
trans-1,2-DCE	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,1,1-Trichloroethane	65	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,1,2-Trichloroethane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Trichloroethene (TCE)	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Trichlorofluoromethane	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
1,2,3-Trichloropropane	ND	20		µg/L	10	6/12/2014 12:48:19 AM	R19202
Vinyl chloride	ND	10		µg/L	10	6/12/2014 12:48:19 AM	R19202
Xylenes, Total	98	15		µg/L	10	6/12/2014 12:48:19 AM	R19202
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	10	6/12/2014 12:48:19 AM	R19202
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	10	6/12/2014 12:48:19 AM	R19202
Surr: Dibromofluoromethane	102	70-130		%REC	10	6/12/2014 12:48:19 AM	R19202
Surr: Toluene-d8	101	70-130		%REC	10	6/12/2014 12:48:19 AM	R19202

EPA METHOD 8015D: GASOLINE RANGEAnalyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-9

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 5:30:00 PM

Lab ID: 1406364-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: cadg
Gasoline Range Organics (GRO)	6.2	0.50		mg/L	10	6/12/2014 12:48:19 AM	R19202
Surr: BFB	98.4	70-130		%REC	10	6/12/2014 12:48:19 AM	R19202

Refer to the QC Summary report and 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 25 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 7:45:00 AM

Lab ID: 1406364-005

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	5.5	1.0		mg/L	1	6/12/2014 12:38:05 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2014 12:38:05 AM	13583
Surr: DNOP	114	62.7-145		%REC	1	6/12/2014 12:38:05 AM	13583
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	8.1	0.10	*	mg/L	50	6/12/2014 5:33:22 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 4:53:31 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 4:53:31 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 4:53:31 PM	R19227
Iron	18	1.0	*	mg/L	50	6/12/2014 5:33:22 PM	R19227
Manganese	9.2	0.10	*	mg/L	50	6/12/2014 5:33:22 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 4:53:31 PM	R19227
Zinc	ND	0.010		mg/L	1	6/12/2014 4:53:31 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	7.7	0.040	*	mg/L	20	6/18/2014 1:33:30 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:27:27 PM	13717
Calcium	410	5.0		mg/L	5	6/18/2014 1:32:02 PM	13717
Chromium	ND	0.0060		mg/L	1	6/17/2014 2:27:27 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 2:27:27 PM	13717
Iron	25	2.0	*	mg/L	100	6/18/2014 1:34:55 PM	13717
Magnesium	120	5.0		mg/L	5	6/18/2014 1:32:02 PM	13717
Manganese	9.5	0.040	*	mg/L	20	6/18/2014 1:33:30 PM	13717
Potassium	4.0	1.0		mg/L	1	6/17/2014 2:27:27 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 6:07:32 PM	13717
Sodium	490	20		mg/L	20	6/18/2014 6:09:15 PM	13717
Zinc	ND	0.010		mg/L	1	6/18/2014 1:30:27 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 4:03:10 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 4:03:10 PM	R19364
Selenium	0.011	0.0050		mg/L	5	6/20/2014 4:01:01 PM	R19449
Uranium	ND	0.010		mg/L	10	6/25/2014 12:40:17 PM	R19508
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 4:19:32 PM	13717
Lead	ND	0.0050		mg/L	5	6/17/2014 4:19:32 PM	13717
Selenium	0.0061	0.0050		mg/L	5	6/17/2014 4:19:32 PM	13717
Uranium	ND	0.0050		mg/L	5	6/17/2014 4:19:32 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:28:47 AM	13740

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 7:45:00 AM

Lab ID: 1406364-005

Matrix: AQUEOUS

Received Date: 6/6/2014 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	6/10/2014 10:09:47 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Aniline	75	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 10:09:47 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 10:09:47 PM	13597
2,4-Dimethylphenol	110	10		µg/L	1	6/10/2014 10:09:47 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 10:09:47 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 10:09:47 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 7:45:00 AM

Lab ID: 1406364-005

Matrix: AQUEOUS

Received Date: 6/6/2014 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	6/10/2014 10:09:47 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
1-Methylnaphthalene	40	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2-Methylnaphthalene	53	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2-Methylphenol	490	80		µg/L	4	6/12/2014 1:40:31 PM	13597
3+4-Methylphenol	610	40		µg/L	4	6/12/2014 1:40:31 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Naphthalene	140	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 10:09:47 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Phenol	370	40		µg/L	4	6/12/2014 1:40:31 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 10:09:47 PM	13597
Surr: 2-Fluorophenol	19.6	12.1-85.8		%REC	1	6/10/2014 10:09:47 PM	13597
Surr: Phenol-d5	49.4	17.7-65.8		%REC	1	6/10/2014 10:09:47 PM	13597
Surr: 2,4,6-Tribromophenol	67.3	26-138		%REC	1	6/10/2014 10:09:47 PM	13597
Surr: Nitrobenzene-d5	82.5	47.5-119		%REC	1	6/10/2014 10:09:47 PM	13597
Surr: 2-Fluorobiphenyl	85.9	48.1-106		%REC	1	6/10/2014 10:09:47 PM	13597
Surr: 4-Terphenyl-d14	80.6	44-113		%REC	1	6/10/2014 10:09:47 PM	13597

EPA METHOD 8260B: VOLATILES

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 7:45:00 AM

Lab ID: 1406364-005

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	12000	200		µg/L	200	6/13/2014 5:25:06 PM	R19253
Toluene	14000	200		µg/L	200	6/13/2014 5:25:06 PM	R19253
Ethylbenzene	740	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Methyl tert-butyl ether (MTBE)	19	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2,4-Trimethylbenzene	270	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,3,5-Trimethylbenzene	65	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Naphthalene	79	20		µg/L	10	6/12/2014 1:16:58 AM	R19202
1-Methylnaphthalene	ND	40		µg/L	10	6/12/2014 1:16:58 AM	R19202
2-Methylnaphthalene	ND	40		µg/L	10	6/12/2014 1:16:58 AM	R19202
Acetone	210	100		µg/L	10	6/12/2014 1:16:58 AM	R19202
Bromobenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Bromodichloromethane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Bromoform	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Bromomethane	ND	30		µg/L	10	6/12/2014 1:16:58 AM	R19202
2-Butanone	1800	100		µg/L	10	6/12/2014 1:16:58 AM	R19202
Carbon disulfide	ND	100		µg/L	10	6/12/2014 1:16:58 AM	R19202
Carbon Tetrachloride	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Chlorobenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Chloroethane	ND	20		µg/L	10	6/12/2014 1:16:58 AM	R19202
Chloroform	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Chloromethane	ND	30		µg/L	10	6/12/2014 1:16:58 AM	R19202
2-Chlorotoluene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
4-Chlorotoluene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
cis-1,2-DCE	33	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/12/2014 1:16:58 AM	R19202
Dibromochloromethane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Dibromomethane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2-Dichlorobenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,3-Dichlorobenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,4-Dichlorobenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Dichlorodifluoromethane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,1-Dichloroethane	51	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,1-Dichloroethene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2-Dichloropropane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,3-Dichloropropane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
2,2-Dichloropropane	ND	20		µg/L	10	6/12/2014 1:16:58 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 7:45:00 AM

Lab ID: 1406364-005

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Hexachlorobutadiene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
2-Hexanone	ND	100		µg/L	10	6/12/2014 1:16:58 AM	R19202
Isopropylbenzene	19	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
4-Isopropyltoluene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
4-Methyl-2-pentanone	ND	100		µg/L	10	6/12/2014 1:16:58 AM	R19202
Methylene Chloride	ND	30		µg/L	10	6/12/2014 1:16:58 AM	R19202
n-Butylbenzene	ND	30		µg/L	10	6/12/2014 1:16:58 AM	R19202
n-Propylbenzene	38	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
sec-Butylbenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Styrene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
tert-Butylbenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/12/2014 1:16:58 AM	R19202
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
trans-1,2-DCE	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,1,1-Trichloroethane	15	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,1,2-Trichloroethane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Trichloroethene (TCE)	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Trichlorofluoromethane	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
1,2,3-Trichloropropane	ND	20		µg/L	10	6/12/2014 1:16:58 AM	R19202
Vinyl chloride	ND	10		µg/L	10	6/12/2014 1:16:58 AM	R19202
Xylenes, Total	3400	300		µg/L	200	6/13/2014 5:25:06 PM	R19253
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%REC	10	6/12/2014 1:16:58 AM	R19202
Surr: 4-Bromofluorobenzene	91.1	70-130		%REC	10	6/12/2014 1:16:58 AM	R19202
Surr: Dibromofluoromethane	103	70-130		%REC	10	6/12/2014 1:16:58 AM	R19202
Surr: Toluene-d8	101	70-130		%REC	10	6/12/2014 1:16:58 AM	R19202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: cadg
Gasoline Range Organics (GRO)	64	10		mg/L	200	6/13/2014 5:25:06 PM	R19253
Surr: BFB	93.4	70-130		%REC	200	6/13/2014 5:25:06 PM	R19253

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:15:00 PM

Lab ID: 1406364-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	2.6	1.0		mg/L	1	6/12/2014 1:07:48 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2014 1:07:48 AM	13583
Surr: DNOP	90.9	62.7-145		%REC	1	6/12/2014 1:07:48 AM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	7.0	2.0	*	mg/L	20	6/9/2014 3:25:25 PM	R19161
Chloride	480	25		mg/L	50	6/11/2014 3:20:09 AM	R19191
Bromide	0.67	0.10		mg/L	1	6/9/2014 3:13:01 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 3:13:01 PM	R19161
Sulfate	11	0.50		mg/L	1	6/9/2014 3:13:01 PM	R19161
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/9/2014 11:02:21 PM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.8	0.010		mg/L	5	6/12/2014 4:59:04 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 4:57:05 PM	R19227
Chromium	0.0060	0.0060		mg/L	1	6/12/2014 4:57:05 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 4:57:05 PM	R19227
Iron	11	1.0	*	mg/L	50	6/12/2014 5:35:16 PM	R19227
Manganese	3.6	0.010	*	mg/L	5	6/12/2014 4:59:04 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 4:57:05 PM	R19227
Zinc	0.036	0.010		mg/L	1	6/12/2014 4:57:05 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.2	0.010		mg/L	5	6/18/2014 1:43:58 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:29:17 PM	13717
Calcium	110	5.0		mg/L	5	6/18/2014 1:43:58 PM	13717
Chromium	0.0061	0.0060		mg/L	1	6/17/2014 2:29:17 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 2:29:17 PM	13717
Iron	8.8	0.20	*	mg/L	10	6/18/2014 1:45:24 PM	13717
Magnesium	31	1.0		mg/L	1	6/17/2014 2:29:17 PM	13717
Manganese	2.8	0.010	*	mg/L	5	6/18/2014 1:43:58 PM	13717
Potassium	4.7	1.0		mg/L	1	6/17/2014 2:29:17 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 6:16:18 PM	13717
Sodium	530	10		mg/L	10	6/18/2014 6:18:02 PM	13717
Zinc	0.038	0.010		mg/L	1	6/18/2014 1:42:19 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0064	0.0050		mg/L	5	6/18/2014 4:08:09 PM	R19364
Lead	0.022	0.0050	*	mg/L	5	6/18/2014 4:08:09 PM	R19364
Selenium	0.010	0.0050		mg/L	5	6/20/2014 4:04:05 PM	R19449
Uranium	ND	0.010		mg/L	10	6/25/2014 12:42:44 PM	R19508

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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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:15:00 PM

Lab ID: 1406364-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0063	0.0050		mg/L	5	6/17/2014 4:24:31 PM	13717
Lead	0.0093	0.0050		mg/L	5	6/17/2014 4:24:31 PM	13717
Selenium	0.0055	0.0050		mg/L	5	6/17/2014 4:24:31 PM	13717
Uranium	ND	0.0050		mg/L	5	6/17/2014 4:24:31 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 12:20:26 PM	13740
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Aniline	25	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 10:38:45 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:15:00 PM

Lab ID: 1406364-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 10:38:45 PM	13597
2,4-Dimethylphenol	92	10		µg/L	1	6/10/2014 10:38:45 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 10:38:45 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 10:38:45 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
1-Methylnaphthalene	11	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2-Methylphenol	180	20		µg/L	1	6/10/2014 10:38:45 PM	13597
3+4-Methylphenol	130	10		µg/L	1	6/10/2014 10:38:45 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Naphthalene	46	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 10:38:45 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Phenol	32	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:15:00 PM

Lab ID: 1406364-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 10:38:45 PM	13597
Surr: 2-Fluorophenol	25.6	12.1-85.8		%REC	1	6/10/2014 10:38:45 PM	13597
Surr: Phenol-d5	39.0	17.7-65.8		%REC	1	6/10/2014 10:38:45 PM	13597
Surr: 2,4,6-Tribromophenol	57.0	26-138		%REC	1	6/10/2014 10:38:45 PM	13597
Surr: Nitrobenzene-d5	74.7	47.5-119		%REC	1	6/10/2014 10:38:45 PM	13597
Surr: 2-Fluorobiphenyl	71.5	48.1-106		%REC	1	6/10/2014 10:38:45 PM	13597
Surr: 4-Terphenyl-d14	69.9	44-113		%REC	1	6/10/2014 10:38:45 PM	13597
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	12000	200		µg/L	200	6/13/2014 5:53:52 PM	R19253
Toluene	7800	200		µg/L	200	6/13/2014 5:53:52 PM	R19253
Ethylbenzene	750	200		µg/L	200	6/13/2014 5:53:52 PM	R19253
Methyl tert-butyl ether (MTBE)	96	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2,4-Trimethylbenzene	270	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,3,5-Trimethylbenzene	52	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Naphthalene	66	10		µg/L	5	6/12/2014 1:45:36 AM	R19202
1-Methylnaphthalene	ND	20		µg/L	5	6/12/2014 1:45:36 AM	R19202
2-Methylnaphthalene	ND	20		µg/L	5	6/12/2014 1:45:36 AM	R19202
Acetone	290	50		µg/L	5	6/12/2014 1:45:36 AM	R19202
Bromobenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Bromodichloromethane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Bromoform	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Bromomethane	ND	15		µg/L	5	6/12/2014 1:45:36 AM	R19202
2-Butanone	170	50		µg/L	5	6/12/2014 1:45:36 AM	R19202
Carbon disulfide	ND	50		µg/L	5	6/12/2014 1:45:36 AM	R19202
Carbon Tetrachloride	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Chlorobenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Chloroethane	ND	10		µg/L	5	6/12/2014 1:45:36 AM	R19202
Chloroform	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Chloromethane	ND	15		µg/L	5	6/12/2014 1:45:36 AM	R19202
2-Chlorotoluene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
4-Chlorotoluene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
cis-1,2-DCE	16	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/12/2014 1:45:36 AM	R19202
Dibromochloromethane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Dibromomethane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:15:00 PM

Lab ID: 1406364-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,1-Dichloroethane	53	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,1-Dichloroethene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2-Dichloropropane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,3-Dichloropropane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
2,2-Dichloropropane	ND	10		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,1-Dichloropropene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Hexachlorobutadiene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
2-Hexanone	ND	50		µg/L	5	6/12/2014 1:45:36 AM	R19202
Isopropylbenzene	29	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
4-Isopropyltoluene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
4-Methyl-2-pentanone	ND	50		µg/L	5	6/12/2014 1:45:36 AM	R19202
Methylene Chloride	ND	15		µg/L	5	6/12/2014 1:45:36 AM	R19202
n-Butylbenzene	ND	15		µg/L	5	6/12/2014 1:45:36 AM	R19202
n-Propylbenzene	68	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
sec-Butylbenzene	7.8	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Styrene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
tert-Butylbenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/12/2014 1:45:36 AM	R19202
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
trans-1,2-DCE	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,1,1-Trichloroethane	14	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Trichlorofluoromethane	ND	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
1,2,3-Trichloropropane	ND	10		µg/L	5	6/12/2014 1:45:36 AM	R19202
Vinyl chloride	18	5.0		µg/L	5	6/12/2014 1:45:36 AM	R19202
Xylenes, Total	2200	300		µg/L	200	6/13/2014 5:53:52 PM	R19253
Surr: 1,2-Dichloroethane-d4	89.1	70-130		%REC	5	6/12/2014 1:45:36 AM	R19202
Surr: 4-Bromofluorobenzene	86.3	70-130		%REC	5	6/12/2014 1:45:36 AM	R19202
Surr: Dibromofluoromethane	97.3	70-130		%REC	5	6/12/2014 1:45:36 AM	R19202
Surr: Toluene-d8	97.6	70-130		%REC	5	6/12/2014 1:45:36 AM	R19202

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:15:00 PM

Lab ID: 1406364-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: cadg
Gasoline Range Organics (GRO)	48	10		mg/L	200	6/13/2014 5:53:52 PM	R19253
Surr: BFB	92.6	70-130		%REC	200	6/13/2014 5:53:52 PM	R19253

Refer to the QC Summary report and 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 36 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-15

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:00:00 PM

Lab ID: 1406364-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	10	1.0		mg/L	1	6/12/2014 1:37:49 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2014 1:37:49 AM	13583
Surr: DNOP	114	62.7-145		%REC	1	6/12/2014 1:37:49 AM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	2.0		mg/L	20	6/9/2014 3:50:15 PM	R19161
Chloride	5200	500		mg/L	1E	6/20/2014 11:43:00 AM	R19420
Bromide	ND	2.0		mg/L	20	6/9/2014 3:50:15 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 3:37:50 PM	R19161
Sulfate	1.2	0.50		mg/L	1	6/9/2014 3:37:50 PM	R19161
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/11/2014 3:57:23 AM	R19191
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	25	0.10	*	mg/L	50	6/13/2014 3:25:41 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/12/2014 5:07:45 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 5:07:45 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 5:07:45 PM	R19227
Iron	11	1.0	*	mg/L	50	6/13/2014 3:25:41 PM	R19281
Manganese	7.5	0.10	*	mg/L	50	6/13/2014 3:25:41 PM	R19281
Silver	ND	0.0050		mg/L	1	6/12/2014 5:07:45 PM	R19227
Zinc	0.011	0.010		mg/L	1	6/12/2014 5:07:45 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	25	0.10	*	mg/L	50	6/18/2014 1:49:55 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:31:13 PM	13717
Calcium	880	10		mg/L	10	6/18/2014 1:48:28 PM	13717
Chromium	0.0074	0.0060		mg/L	1	6/17/2014 2:31:13 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 2:31:13 PM	13717
Iron	11	1.0	*	mg/L	50	6/18/2014 1:49:55 PM	13717
Magnesium	260	10		mg/L	10	6/18/2014 1:48:28 PM	13717
Manganese	7.9	0.020	*	mg/L	10	6/18/2014 1:48:28 PM	13717
Potassium	14	1.0		mg/L	1	6/17/2014 2:31:13 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 6:19:44 PM	13717
Sodium	2400	50		mg/L	50	6/18/2014 6:21:30 PM	13717
Zinc	0.017	0.010		mg/L	1	6/18/2014 1:46:49 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 4:13:09 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 4:13:09 PM	R19364
Selenium	ND	0.010		mg/L	10	6/25/2014 2:10:58 PM	R19508
Uranium	ND	0.010		mg/L	10	6/25/2014 12:45:08 PM	R19508

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-15

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:00:00 PM

Lab ID: 1406364-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/17/2014 5:54:24 PM	13717
Lead	0.011	0.0050		mg/L	5	6/17/2014 4:29:30 PM	13717
Selenium	ND	0.010		mg/L	10	6/17/2014 5:54:24 PM	13717
Uranium	ND	0.0050		mg/L	5	6/17/2014 4:29:30 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 12:22:12 PM	13740
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Aniline	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Anthracene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Azobenzene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Benzoic acid	23	20		µg/L	1	6/12/2014 8:31:32 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Carbazole	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Chrysene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-15

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:00:00 PM

Lab ID: 1406364-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
1,4-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/12/2014 8:31:32 PM	13597
2,4-Dimethylphenol	13	10		µg/L	1	6/12/2014 8:31:32 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/12/2014 8:31:32 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/12/2014 8:31:32 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Fluoranthene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Fluorene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Isophorone	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
1-Methylnaphthalene	21	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2-Methylnaphthalene	21	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2-Methylphenol	28	20		µg/L	1	6/12/2014 8:31:32 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Naphthalene	50	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/12/2014 8:31:32 PM	13597
Phenanthrene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Phenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Pyrene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Pyridine	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-15

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:00:00 PM

Lab ID: 1406364-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/12/2014 8:31:32 PM	13597
Surr: 2-Fluorophenol	4.42	12.1-85.8	S	%REC	1	6/12/2014 8:31:32 PM	13597
Surr: Phenol-d5	17.3	17.7-65.8	S	%REC	1	6/12/2014 8:31:32 PM	13597
Surr: 2,4,6-Tribromophenol	14.4	26-138	S	%REC	1	6/12/2014 8:31:32 PM	13597
Surr: Nitrobenzene-d5	101	47.5-119		%REC	1	6/12/2014 8:31:32 PM	13597
Surr: 2-Fluorobiphenyl	97.7	48.1-106		%REC	1	6/12/2014 8:31:32 PM	13597
Surr: 4-Terphenyl-d14	89.9	44-113		%REC	1	6/12/2014 8:31:32 PM	13597
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	12000	200		µg/L	200	6/13/2014 6:22:38 PM	R19253
Toluene	8800	200		µg/L	200	6/13/2014 6:22:38 PM	R19253
Ethylbenzene	1300	200		µg/L	200	6/13/2014 6:22:38 PM	R19253
Methyl tert-butyl ether (MTBE)	270	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2,4-Trimethylbenzene	330	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,3,5-Trimethylbenzene	95	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Naphthalene	80	10		µg/L	5	6/12/2014 2:14:21 AM	R19202
1-Methylnaphthalene	30	20		µg/L	5	6/12/2014 2:14:21 AM	R19202
2-Methylnaphthalene	35	20		µg/L	5	6/12/2014 2:14:21 AM	R19202
Acetone	290	50		µg/L	5	6/12/2014 2:14:21 AM	R19202
Bromobenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Bromodichloromethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Bromoform	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Bromomethane	ND	15		µg/L	5	6/12/2014 2:14:21 AM	R19202
2-Butanone	62	50		µg/L	5	6/12/2014 2:14:21 AM	R19202
Carbon disulfide	ND	50		µg/L	5	6/12/2014 2:14:21 AM	R19202
Carbon Tetrachloride	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Chlorobenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Chloroethane	ND	10		µg/L	5	6/12/2014 2:14:21 AM	R19202
Chloroform	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Chloromethane	ND	15		µg/L	5	6/12/2014 2:14:21 AM	R19202
2-Chlorotoluene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
4-Chlorotoluene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
cis-1,2-DCE	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/12/2014 2:14:21 AM	R19202
Dibromochloromethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Dibromomethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-15

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:00:00 PM

Lab ID: 1406364-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,1-Dichloroethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,1-Dichloroethene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2-Dichloropropane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,3-Dichloropropane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
2,2-Dichloropropane	ND	10		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,1-Dichloropropene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Hexachlorobutadiene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
2-Hexanone	ND	50		µg/L	5	6/12/2014 2:14:21 AM	R19202
Isopropylbenzene	59	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
4-Isopropyltoluene	5.9	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
4-Methyl-2-pentanone	ND	50		µg/L	5	6/12/2014 2:14:21 AM	R19202
Methylene Chloride	ND	15		µg/L	5	6/12/2014 2:14:21 AM	R19202
n-Butylbenzene	ND	15		µg/L	5	6/12/2014 2:14:21 AM	R19202
n-Propylbenzene	97	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
sec-Butylbenzene	12	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Styrene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
tert-Butylbenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/12/2014 2:14:21 AM	R19202
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
trans-1,2-DCE	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,1,1-Trichloroethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Trichlorofluoromethane	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
1,2,3-Trichloropropane	ND	10		µg/L	5	6/12/2014 2:14:21 AM	R19202
Vinyl chloride	ND	5.0		µg/L	5	6/12/2014 2:14:21 AM	R19202
Xylenes, Total	3700	300		µg/L	200	6/13/2014 6:22:38 PM	R19253
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	5	6/12/2014 2:14:21 AM	R19202
Surr: 4-Bromofluorobenzene	82.0	70-130		%REC	5	6/12/2014 2:14:21 AM	R19202
Surr: Dibromofluoromethane	97.2	70-130		%REC	5	6/12/2014 2:14:21 AM	R19202
Surr: Toluene-d8	107	70-130		%REC	5	6/12/2014 2:14:21 AM	R19202

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-15

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 3:00:00 PM

Lab ID: 1406364-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: cadg
Gasoline Range Organics (GRO)	57	10		mg/L	200	6/13/2014 6:22:38 PM	R19253
Surr: BFB	94.2	70-130		%REC	200	6/13/2014 6:22:38 PM	R19253

Refer to the QC Summary report and 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 42 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 4:35:00 PM

Lab ID: 1406364-008

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	5.7	1.0		mg/L	1	6/12/2014 2:07:54 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2014 2:07:54 AM	13583
Surr: DNOP	116	62.7-145		%REC	1	6/12/2014 2:07:54 AM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.1	0.50		mg/L	5	6/9/2014 4:02:40 PM	R19161
Chloride	540	25		mg/L	50	6/11/2014 3:44:58 AM	R19191
Bromide	1.7	0.50		mg/L	5	6/9/2014 4:02:40 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	6/9/2014 4:02:40 PM	R19161
Sulfate	ND	2.5		mg/L	5	6/9/2014 4:02:40 PM	R19161
Nitrate+Nitrite as N	ND	1.0	H	mg/L	5	6/9/2014 4:02:40 PM	R19161
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.81	0.0020		mg/L	1	6/12/2014 5:11:06 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 5:11:06 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 5:11:06 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 5:11:06 PM	R19227
Iron	7.9	0.20	*	mg/L	10	6/13/2014 3:34:56 PM	R19281
Manganese	1.3	0.010	*	mg/L	5	6/12/2014 5:12:55 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 5:11:06 PM	R19227
Zinc	0.022	0.010		mg/L	1	6/12/2014 5:11:06 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.90	0.0020		mg/L	1	6/17/2014 2:33:00 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:33:00 PM	13717
Calcium	68	1.0		mg/L	1	6/17/2014 2:33:00 PM	13717
Chromium	ND	0.0060		mg/L	1	6/17/2014 2:33:00 PM	13717
Copper	0.0080	0.0060		mg/L	1	6/17/2014 2:33:00 PM	13717
Iron	7.9	0.20	*	mg/L	10	6/18/2014 1:53:06 PM	13717
Magnesium	17	1.0		mg/L	1	6/17/2014 2:33:00 PM	13717
Manganese	1.2	0.020	*	mg/L	10	6/18/2014 1:53:06 PM	13717
Potassium	5.2	1.0		mg/L	1	6/17/2014 2:33:00 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 6:23:29 PM	13717
Sodium	740	10		mg/L	10	6/18/2014 6:25:10 PM	13717
Zinc	0.089	0.010		mg/L	1	6/18/2014 1:51:31 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.0050	*	mg/L	5	6/18/2014 4:38:10 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 4:38:10 PM	R19364
Selenium	0.017	0.0050		mg/L	5	6/20/2014 4:10:08 PM	R19449
Uranium	ND	0.010		mg/L	10	6/25/2014 12:47:33 PM	R19508

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 4:35:00 PM

Lab ID: 1406364-008

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.023	0.0050	*	mg/L	5	6/17/2014 4:34:29 PM	13717
Lead	ND	0.0050		mg/L	5	6/17/2014 4:34:29 PM	13717
Selenium	0.013	0.0050		mg/L	5	6/17/2014 4:34:29 PM	13717
Uranium	0.015	0.0050		mg/L	5	6/17/2014 4:34:29 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:34:09 AM	13740
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	18000	500		µg/L	500	6/13/2014 6:51:20 PM	R19253
Toluene	3700	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Ethylbenzene	1700	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Methyl tert-butyl ether (MTBE)	2000	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2,4-Trimethylbenzene	1200	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,3,5-Trimethylbenzene	360	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Naphthalene	240	100		µg/L	50	6/13/2014 7:20:03 PM	R19253
1-Methylnaphthalene	ND	200		µg/L	50	6/13/2014 7:20:03 PM	R19253
2-Methylnaphthalene	ND	200		µg/L	50	6/13/2014 7:20:03 PM	R19253
Acetone	ND	500		µg/L	50	6/13/2014 7:20:03 PM	R19253
Bromobenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Bromodichloromethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Bromoform	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Bromomethane	ND	150		µg/L	50	6/13/2014 7:20:03 PM	R19253
2-Butanone	ND	500		µg/L	50	6/13/2014 7:20:03 PM	R19253
Carbon disulfide	ND	500		µg/L	50	6/13/2014 7:20:03 PM	R19253
Carbon Tetrachloride	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Chlorobenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Chloroethane	ND	100		µg/L	50	6/13/2014 7:20:03 PM	R19253
Chloroform	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Chloromethane	ND	150		µg/L	50	6/13/2014 7:20:03 PM	R19253
2-Chlorotoluene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
4-Chlorotoluene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
cis-1,2-DCE	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
cis-1,3-Dichloropropene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	6/13/2014 7:20:03 PM	R19253
Dibromochloromethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Dibromomethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2-Dichlorobenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 4:35:00 PM

Lab ID: 1406364-008

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,3-Dichlorobenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,4-Dichlorobenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Dichlorodifluoromethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,1-Dichloroethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,1-Dichloroethene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2-Dichloropropane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,3-Dichloropropane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
2,2-Dichloropropane	ND	100		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,1-Dichloropropene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Hexachlorobutadiene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
2-Hexanone	ND	500		µg/L	50	6/13/2014 7:20:03 PM	R19253
Isopropylbenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
4-Isopropyltoluene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
4-Methyl-2-pentanone	ND	500		µg/L	50	6/13/2014 7:20:03 PM	R19253
Methylene Chloride	ND	150		µg/L	50	6/13/2014 7:20:03 PM	R19253
n-Butylbenzene	ND	150		µg/L	50	6/13/2014 7:20:03 PM	R19253
n-Propylbenzene	150	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
sec-Butylbenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Styrene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
tert-Butylbenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	6/13/2014 7:20:03 PM	R19253
Tetrachloroethene (PCE)	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
trans-1,2-DCE	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
trans-1,3-Dichloropropene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2,3-Trichlorobenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2,4-Trichlorobenzene	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,1,1-Trichloroethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,1,2-Trichloroethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Trichloroethene (TCE)	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Trichlorofluoromethane	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
1,2,3-Trichloropropane	ND	100		µg/L	50	6/13/2014 7:20:03 PM	R19253
Vinyl chloride	ND	50		µg/L	50	6/13/2014 7:20:03 PM	R19253
Xylenes, Total	8100	75		µg/L	50	6/13/2014 7:20:03 PM	R19253
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%REC	50	6/13/2014 7:20:03 PM	R19253
Surr: 4-Bromofluorobenzene	95.1	70-130		%REC	50	6/13/2014 7:20:03 PM	R19253
Surr: Dibromofluoromethane	107	70-130		%REC	50	6/13/2014 7:20:03 PM	R19253
Surr: Toluene-d8	96.7	70-130		%REC	50	6/13/2014 7:20:03 PM	R19253

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 4:35:00 PM

Lab ID: 1406364-008

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE				Analyst: cadg			
Gasoline Range Organics (GRO)	71	2.5		mg/L	50	6/13/2014 7:20:03 PM	R19253
Surr: BFB	97.5	70-130		%REC	50	6/13/2014 7:20:03 PM	R19253

Refer to the QC Summary report and 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 46 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 10:15:00 AM

Lab ID: 1406364-009

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	4.2	1.0		mg/L	1	6/12/2014 2:37:26 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2014 2:37:26 AM	13583
Surr: DNOP	97.8	62.7-145		%REC	1	6/12/2014 2:37:26 AM	13583
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	2600	100	p	µg/L	100	6/13/2014 9:14:56 PM	R19253
Toluene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Ethylbenzene	480	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Methyl tert-butyl ether (MTBE)	1100	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2,4-Trimethylbenzene	64	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,3,5-Trimethylbenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2-Dichloroethane (EDC)	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2-Dibromoethane (EDB)	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Naphthalene	ND	20	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1-Methylnaphthalene	ND	40	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
2-Methylnaphthalene	ND	40	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Acetone	ND	100	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Bromobenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Bromodichloromethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Bromoform	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Bromomethane	ND	30	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
2-Butanone	ND	100	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Carbon disulfide	ND	100	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Carbon Tetrachloride	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Chlorobenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Chloroethane	ND	20	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Chloroform	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Chloromethane	ND	30	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
2-Chlorotoluene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
4-Chlorotoluene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
cis-1,2-DCE	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
cis-1,3-Dichloropropene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2-Dibromo-3-chloropropane	ND	20	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Dibromochloromethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Dibromomethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2-Dichlorobenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,3-Dichlorobenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,4-Dichlorobenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Dichlorodifluoromethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,1-Dichloroethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-17

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 10:15:00 AM

Lab ID: 1406364-009

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloroethene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2-Dichloropropane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,3-Dichloropropane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
2,2-Dichloropropane	ND	20	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,1-Dichloropropene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Hexachlorobutadiene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
2-Hexanone	ND	100	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Isopropylbenzene	30	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
4-Isopropyltoluene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
4-Methyl-2-pentanone	ND	100	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Methylene Chloride	ND	30	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
n-Butylbenzene	ND	30	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
n-Propylbenzene	60	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
sec-Butylbenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Styrene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
tert-Butylbenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,1,1,2-Tetrachloroethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,1,2,2-Tetrachloroethane	ND	20	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Tetrachloroethene (PCE)	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
trans-1,2-DCE	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
trans-1,3-Dichloropropene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2,3-Trichlorobenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2,4-Trichlorobenzene	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,1,1-Trichloroethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,1,2-Trichloroethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Trichloroethene (TCE)	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Trichlorofluoromethane	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
1,2,3-Trichloropropane	ND	20	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Vinyl chloride	ND	10	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Xylenes, Total	68	15	p	µg/L	10	6/13/2014 9:43:39 PM	R19253
Surr: 1,2-Dichloroethane-d4	93.2	70-130	p	%REC	10	6/13/2014 9:43:39 PM	R19253
Surr: 4-Bromofluorobenzene	87.1	70-130	p	%REC	10	6/13/2014 9:43:39 PM	R19253
Surr: Dibromofluoromethane	101	70-130	p	%REC	10	6/13/2014 9:43:39 PM	R19253
Surr: Toluene-d8	97.4	70-130	p	%REC	10	6/13/2014 9:43:39 PM	R19253
EPA METHOD 8015D: GASOLINE RANGE							Analyst: cadg
Gasoline Range Organics (GRO)	8.3	0.50	p	mg/L	10	6/13/2014 9:43:39 PM	R19253
Surr: BFB	91.0	70-130	p	%REC	10	6/13/2014 9:43:39 PM	R19253

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 9:20:00 AM

Lab ID: 1406364-010

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	7.8	1.0		mg/L	1	6/12/2014 3:07:03 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2014 3:07:03 AM	13583
Surr: DNOP	132	62.7-145		%REC	1	6/12/2014 3:07:03 AM	13583
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.65	0.10		mg/L	1	6/9/2014 4:27:29 PM	R19161
Chloride	170	10		mg/L	20	6/9/2014 4:39:53 PM	R19161
Bromide	0.81	0.10		mg/L	1	6/9/2014 4:27:29 PM	R19161
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 4:27:29 PM	R19161
Sulfate	0.95	0.50		mg/L	1	6/9/2014 4:27:29 PM	R19161
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/10/2014 12:19:02 AM	R19161
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	2.4	0.010	*	mg/L	5	6/12/2014 5:16:20 PM	R19227
Cadmium	ND	0.0020		mg/L	1	6/12/2014 5:14:35 PM	R19227
Chromium	ND	0.0060		mg/L	1	6/12/2014 5:14:35 PM	R19227
Copper	ND	0.0060		mg/L	1	6/12/2014 5:14:35 PM	R19227
Iron	4.5	0.10	*	mg/L	5	6/12/2014 5:16:20 PM	R19227
Manganese	2.0	0.010	*	mg/L	5	6/12/2014 5:16:20 PM	R19227
Silver	ND	0.0050		mg/L	1	6/12/2014 5:14:35 PM	R19227
Zinc	ND	0.010		mg/L	1	6/12/2014 5:14:35 PM	R19227
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	19	0.040	*	mg/L	20	6/18/2014 2:11:41 PM	13717
Cadmium	ND	0.010		mg/L	5	6/18/2014 2:10:14 PM	13717
Calcium	890	20		mg/L	20	6/18/2014 2:11:41 PM	13717
Chromium	0.11	0.030	*	mg/L	5	6/18/2014 2:10:14 PM	13717
Copper	0.12	0.030		mg/L	5	6/18/2014 2:10:14 PM	13717
Iron	81	2.0	*	mg/L	100	6/18/2014 2:13:05 PM	13717
Magnesium	100	5.0		mg/L	5	6/18/2014 2:10:14 PM	13717
Manganese	17	0.040	*	mg/L	20	6/18/2014 2:11:41 PM	13717
Potassium	11	5.0		mg/L	5	6/18/2014 2:10:14 PM	13717
Silver	ND	0.025		mg/L	5	6/18/2014 2:10:14 PM	13717
Sodium	250	5.0		mg/L	5	6/18/2014 6:26:51 PM	13717
Zinc	0.31	0.050		mg/L	5	6/18/2014 2:10:14 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 4:43:10 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 4:43:10 PM	R19364
Selenium	0.0086	0.0050		mg/L	5	6/20/2014 4:13:10 PM	R19449
Uranium	ND	0.010		mg/L	10	6/25/2014 12:49:57 PM	R19508

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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 greater than 2.
	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 1406364

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 9:20:00 AM

Lab ID: 1406364-010

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.013	0.0050	*	mg/L	5	6/26/2014 4:26:48 PM	13717
Lead	0.29	0.020	*	mg/L	20	6/20/2014 11:59:14 AM	13717
Selenium	0.013	0.0050		mg/L	5	6/26/2014 4:26:48 PM	13717
Uranium	0.022	0.0050		mg/L	5	6/17/2014 4:39:29 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 12:23:57 PM	13740
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Acenaphthylene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Aniline	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Anthracene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Azobenzene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Benz(a)anthracene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Benzo(a)pyrene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Benzo(b)fluoranthene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Benzo(g,h,i)perylene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Benzo(k)fluoranthene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Benzoic acid	ND	29		µg/L	1	6/10/2014 11:36:58 PM	13597
Benzyl alcohol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Bis(2-chloroethoxy)methane	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Bis(2-chloroethyl)ether	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Bis(2-chloroisopropyl)ether	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Bis(2-ethylhexyl)phthalate	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
4-Bromophenyl phenyl ether	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Butyl benzyl phthalate	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Carbazole	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
4-Chloro-3-methylphenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
4-Chloroaniline	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2-Chloronaphthalene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2-Chlorophenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
4-Chlorophenyl phenyl ether	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Chrysene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Di-n-butyl phthalate	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Di-n-octyl phthalate	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Dibenz(a,h)anthracene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Dibenzofuran	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
1,2-Dichlorobenzene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
1,3-Dichlorobenzene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597

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	E	Value 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 greater than 2.
	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 1406364

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 9:20:00 AM

Lab ID: 1406364-010

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
3,3'-Dichlorobenzidine	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Diethyl phthalate	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Dimethyl phthalate	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2,4-Dichlorophenol	ND	29		µg/L	1	6/10/2014 11:36:58 PM	13597
2,4-Dimethylphenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
4,6-Dinitro-2-methylphenol	ND	29		µg/L	1	6/10/2014 11:36:58 PM	13597
2,4-Dinitrophenol	ND	29		µg/L	1	6/10/2014 11:36:58 PM	13597
2,4-Dinitrotoluene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2,6-Dinitrotoluene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Fluoranthene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Fluorene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Hexachlorobenzene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Hexachlorobutadiene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Hexachlorocyclopentadiene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Hexachloroethane	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Indeno(1,2,3-cd)pyrene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Isophorone	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
1-Methylnaphthalene	64	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2-Methylnaphthalene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2-Methylphenol	ND	29		µg/L	1	6/10/2014 11:36:58 PM	13597
3+4-Methylphenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
N-Nitrosodi-n-propylamine	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
N-Nitrosodimethylamine	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
N-Nitrosodiphenylamine	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Naphthalene	26	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2-Nitroaniline	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
3-Nitroaniline	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
4-Nitroaniline	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Nitrobenzene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2-Nitrophenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
4-Nitrophenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Pentachlorophenol	ND	29		µg/L	1	6/10/2014 11:36:58 PM	13597
Phenanthrene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Phenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Pyrene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Pyridine	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
1,2,4-Trichlorobenzene	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
2,4,5-Trichlorophenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 9:20:00 AM

Lab ID: 1406364-010

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	14		µg/L	1	6/10/2014 11:36:58 PM	13597
Surr: 2-Fluorophenol	38.9	12.1-85.8		%REC	1	6/10/2014 11:36:58 PM	13597
Surr: Phenol-d5	31.1	17.7-65.8		%REC	1	6/10/2014 11:36:58 PM	13597
Surr: 2,4,6-Tribromophenol	63.5	26-138		%REC	1	6/10/2014 11:36:58 PM	13597
Surr: Nitrobenzene-d5	67.0	47.5-119		%REC	1	6/10/2014 11:36:58 PM	13597
Surr: 2-Fluorobiphenyl	60.5	48.1-106		%REC	1	6/10/2014 11:36:58 PM	13597
Surr: 4-Terphenyl-d14	63.4	44-113		%REC	1	6/10/2014 11:36:58 PM	13597
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	290	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Toluene	14	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Ethylbenzene	36	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Methyl tert-butyl ether (MTBE)	140	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2,4-Trimethylbenzene	88	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,3,5-Trimethylbenzene	29	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Naphthalene	68	10		µg/L	5	6/13/2014 8:17:26 PM	R19253
1-Methylnaphthalene	130	20		µg/L	5	6/13/2014 8:17:26 PM	R19253
2-Methylnaphthalene	28	20		µg/L	5	6/13/2014 8:17:26 PM	R19253
Acetone	ND	50		µg/L	5	6/13/2014 8:17:26 PM	R19253
Bromobenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Bromodichloromethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Bromoform	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Bromomethane	ND	15		µg/L	5	6/13/2014 8:17:26 PM	R19253
2-Butanone	ND	50		µg/L	5	6/13/2014 8:17:26 PM	R19253
Carbon disulfide	ND	50		µg/L	5	6/13/2014 8:17:26 PM	R19253
Carbon Tetrachloride	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Chlorobenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Chloroethane	ND	10		µg/L	5	6/13/2014 8:17:26 PM	R19253
Chloroform	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Chloromethane	ND	15		µg/L	5	6/13/2014 8:17:26 PM	R19253
2-Chlorotoluene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
4-Chlorotoluene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
cis-1,2-DCE	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/13/2014 8:17:26 PM	R19253
Dibromochloromethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Dibromomethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 9:20:00 AM

Lab ID: 1406364-010

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,1-Dichloroethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,1-Dichloroethene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2-Dichloropropane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,3-Dichloropropane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
2,2-Dichloropropane	ND	10		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,1-Dichloropropene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Hexachlorobutadiene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
2-Hexanone	ND	50		µg/L	5	6/13/2014 8:17:26 PM	R19253
Isopropylbenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
4-Isopropyltoluene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
4-Methyl-2-pentanone	ND	50		µg/L	5	6/13/2014 8:17:26 PM	R19253
Methylene Chloride	ND	15		µg/L	5	6/13/2014 8:17:26 PM	R19253
n-Butylbenzene	ND	15		µg/L	5	6/13/2014 8:17:26 PM	R19253
n-Propylbenzene	6.6	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
sec-Butylbenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Styrene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
tert-Butylbenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/13/2014 8:17:26 PM	R19253
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
trans-1,2-DCE	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,1,1-Trichloroethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Trichlorofluoromethane	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
1,2,3-Trichloropropane	ND	10		µg/L	5	6/13/2014 8:17:26 PM	R19253
Vinyl chloride	ND	5.0		µg/L	5	6/13/2014 8:17:26 PM	R19253
Xylenes, Total	55	7.5		µg/L	5	6/13/2014 8:17:26 PM	R19253
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%REC	5	6/13/2014 8:17:26 PM	R19253
Surr: 4-Bromofluorobenzene	93.7	70-130		%REC	5	6/13/2014 8:17:26 PM	R19253
Surr: Dibromofluoromethane	105	70-130		%REC	5	6/13/2014 8:17:26 PM	R19253
Surr: Toluene-d8	101	70-130		%REC	5	6/13/2014 8:17:26 PM	R19253

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **cadg**

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-18

Project: 2014 2nd Quarter

Collection Date: 6/6/2014 9:20:00 AM

Lab ID: 1406364-010

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: cadg	
Gasoline Range Organics (GRO)	2.2	0.25		mg/L	5	6/13/2014 8:17:26 PM	R19253
Surr: BFB	100	70-130		%REC	5	6/13/2014 8:17:26 PM	R19253

Refer to the QC Summary report and 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 54 of 88
	E	Value 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 greater than 2.	
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-GROUP4-060414

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 5:00:00 PM

Lab ID: 1406364-011

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Toluene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Ethylbenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Naphthalene	ND	2.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
2-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Acetone	ND	10		µg/L	1	6/13/2014 8:46:09 PM	R19253
Bromobenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Bromoform	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Bromomethane	ND	3.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
2-Butanone	ND	10		µg/L	1	6/13/2014 8:46:09 PM	R19253
Carbon disulfide	ND	10		µg/L	1	6/13/2014 8:46:09 PM	R19253
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Chlorobenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Chloroethane	ND	2.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Chloroform	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Chloromethane	ND	3.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
2-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
4-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Dibromomethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,3-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
2,2-Dichloropropane	ND	2.0		µg/L	1	6/13/2014 8:46:09 PM	R19253

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-GROUP4-060414

Project: 2014 2nd Quarter

Collection Date: 6/4/2014 5:00:00 PM

Lab ID: 1406364-011

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Hexachlorobutadiene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
2-Hexanone	ND	10		µg/L	1	6/13/2014 8:46:09 PM	R19253
Isopropylbenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
4-Isopropyltoluene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2014 8:46:09 PM	R19253
Methylene Chloride	ND	3.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
n-Butylbenzene	ND	3.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
n-Propylbenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
sec-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Styrene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
tert-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Vinyl chloride	ND	1.0		µg/L	1	6/13/2014 8:46:09 PM	R19253
Xylenes, Total	ND	1.5		µg/L	1	6/13/2014 8:46:09 PM	R19253
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%REC	1	6/13/2014 8:46:09 PM	R19253
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	6/13/2014 8:46:09 PM	R19253
Surr: Dibromofluoromethane	111	70-130		%REC	1	6/13/2014 8:46:09 PM	R19253
Surr: Toluene-d8	99.7	70-130		%REC	1	6/13/2014 8:46:09 PM	R19253

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-#1-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 6:30:00 PM

Lab ID: 1406364-012

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Toluene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Ethylbenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Naphthalene	ND	2.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1-Methylnaphthalene	ND	4.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
2-Methylnaphthalene	ND	4.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Acetone	ND	10		µg/L	1	6/12/2014 4:38:00 AM	R19202
Bromobenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Bromodichloromethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Bromoform	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Bromomethane	ND	3.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
2-Butanone	ND	10		µg/L	1	6/12/2014 4:38:00 AM	R19202
Carbon disulfide	ND	10		µg/L	1	6/12/2014 4:38:00 AM	R19202
Carbon Tetrachloride	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Chlorobenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Chloroethane	ND	2.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Chloroform	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Chloromethane	ND	3.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
2-Chlorotoluene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
4-Chlorotoluene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
cis-1,2-DCE	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Dibromochloromethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Dibromomethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,1-Dichloroethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,1-Dichloroethene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2-Dichloropropane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,3-Dichloropropane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
2,2-Dichloropropane	ND	2.0		µg/L	1	6/12/2014 4:38:00 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-#1-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 6:30:00 PM

Lab ID: 1406364-012

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Hexachlorobutadiene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
2-Hexanone	ND	10		µg/L	1	6/12/2014 4:38:00 AM	R19202
Isopropylbenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
4-Isopropyltoluene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
4-Methyl-2-pentanone	ND	10		µg/L	1	6/12/2014 4:38:00 AM	R19202
Methylene Chloride	ND	3.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
n-Butylbenzene	ND	3.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
n-Propylbenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
sec-Butylbenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Styrene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
tert-Butylbenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
trans-1,2-DCE	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Trichlorofluoromethane	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Vinyl chloride	ND	1.0		µg/L	1	6/12/2014 4:38:00 AM	R19202
Xylenes, Total	ND	1.5		µg/L	1	6/12/2014 4:38:00 AM	R19202
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	6/12/2014 4:38:00 AM	R19202
Surr: 4-Bromofluorobenzene	99.7	70-130		%REC	1	6/12/2014 4:38:00 AM	R19202
Surr: Dibromofluoromethane	111	70-130		%REC	1	6/12/2014 4:38:00 AM	R19202
Surr: Toluene-d8	102	70-130		%REC	1	6/12/2014 4:38:00 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-#2-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 6:45:00 PM

Lab ID: 1406364-013

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Toluene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Ethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Naphthalene	ND	2.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1-Methylnaphthalene	ND	4.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
2-Methylnaphthalene	ND	4.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Acetone	ND	10		µg/L	1	6/12/2014 5:06:45 AM	R19202
Bromobenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Bromodichloromethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Bromoform	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Bromomethane	ND	3.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
2-Butanone	ND	10		µg/L	1	6/12/2014 5:06:45 AM	R19202
Carbon disulfide	ND	10		µg/L	1	6/12/2014 5:06:45 AM	R19202
Carbon Tetrachloride	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Chlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Chloroethane	ND	2.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Chloroform	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Chloromethane	ND	3.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
2-Chlorotoluene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
4-Chlorotoluene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
cis-1,2-DCE	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Dibromochloromethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Dibromomethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,1-Dichloroethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,1-Dichloroethene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2-Dichloropropane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,3-Dichloropropane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
2,2-Dichloropropane	ND	2.0		µg/L	1	6/12/2014 5:06:45 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-#2-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 6:45:00 PM

Lab ID: 1406364-013

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Hexachlorobutadiene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
2-Hexanone	ND	10		µg/L	1	6/12/2014 5:06:45 AM	R19202
Isopropylbenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
4-Isopropyltoluene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
4-Methyl-2-pentanone	ND	10		µg/L	1	6/12/2014 5:06:45 AM	R19202
Methylene Chloride	ND	3.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
n-Butylbenzene	ND	3.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
n-Propylbenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
sec-Butylbenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Styrene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
tert-Butylbenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
trans-1,2-DCE	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Trichlorofluoromethane	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Vinyl chloride	ND	1.0		µg/L	1	6/12/2014 5:06:45 AM	R19202
Xylenes, Total	ND	1.5		µg/L	1	6/12/2014 5:06:45 AM	R19202
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	6/12/2014 5:06:45 AM	R19202
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	1	6/12/2014 5:06:45 AM	R19202
Surr: Dibromofluoromethane	116	70-130		%REC	1	6/12/2014 5:06:45 AM	R19202
Surr: Toluene-d8	99.5	70-130		%REC	1	6/12/2014 5:06:45 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-6/4/14

Project: 2014 2nd Quarter

Collection Date: 6/4/2014

Lab ID: 1406364-014

Matrix: AQUEOUS

Received Date: 6/6/2014 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	6/11/2014 12:06:10 AM	13597
Acenaphthylene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Aniline	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Anthracene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Azobenzene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Benzoic acid	ND	20		µg/L	1	6/11/2014 12:06:10 AM	13597
Benzyl alcohol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Carbazole	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
4-Chloroaniline	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2-Chlorophenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Chrysene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Dibenzofuran	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Diethyl phthalate	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/11/2014 12:06:10 AM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/11/2014 12:06:10 AM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/11/2014 12:06:10 AM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-6/4/14

Project: 2014 2nd Quarter

Collection Date: 6/4/2014

Lab ID: 1406364-014

Matrix: AQUEOUS

Received Date: 6/6/2014 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	6/11/2014 12:06:10 AM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Fluoranthene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Fluorene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Hexachloroethane	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Isophorone	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
1-Methylnaphthalene	88	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2-Methylnaphthalene	110	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2-Methylphenol	ND	20		µg/L	1	6/11/2014 12:06:10 AM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Naphthalene	200	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2-Nitroaniline	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
3-Nitroaniline	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
4-Nitroaniline	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Nitrobenzene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2-Nitrophenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
4-Nitrophenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Pentachlorophenol	ND	20		µg/L	1	6/11/2014 12:06:10 AM	13597
Phenanthrene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Phenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Pyrene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Pyridine	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/11/2014 12:06:10 AM	13597
Surr: 2-Fluorophenol	41.7	12.1-85.8		%REC	1	6/11/2014 12:06:10 AM	13597
Surr: Phenol-d5	39.0	17.7-65.8		%REC	1	6/11/2014 12:06:10 AM	13597
Surr: 2,4,6-Tribromophenol	67.2	26-138		%REC	1	6/11/2014 12:06:10 AM	13597
Surr: Nitrobenzene-d5	71.9	47.5-119		%REC	1	6/11/2014 12:06:10 AM	13597
Surr: 2-Fluorobiphenyl	69.2	48.1-106		%REC	1	6/11/2014 12:06:10 AM	13597
Surr: 4-Terphenyl-d14	64.3	44-113		%REC	1	6/11/2014 12:06:10 AM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2014 2nd Quarter

Collection Date:

Lab ID: 1406364-015

Matrix: TRIP BLANK

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Toluene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Ethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Naphthalene	ND	2.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1-Methylnaphthalene	ND	4.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
2-Methylnaphthalene	ND	4.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Acetone	ND	10		µg/L	1	6/12/2014 5:35:37 AM	R19202
Bromobenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Bromodichloromethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Bromoform	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Bromomethane	ND	3.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
2-Butanone	ND	10		µg/L	1	6/12/2014 5:35:37 AM	R19202
Carbon disulfide	ND	10		µg/L	1	6/12/2014 5:35:37 AM	R19202
Carbon Tetrachloride	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Chlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Chloroethane	ND	2.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Chloroform	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Chloromethane	ND	3.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
2-Chlorotoluene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
4-Chlorotoluene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
cis-1,2-DCE	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Dibromochloromethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Dibromomethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,1-Dichloroethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,1-Dichloroethene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2-Dichloropropane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,3-Dichloropropane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
2,2-Dichloropropane	ND	2.0		µg/L	1	6/12/2014 5:35:37 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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 **1406364**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2014 2nd Quarter

Collection Date:

Lab ID: 1406364-015

Matrix: TRIP BLANK

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Hexachlorobutadiene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
2-Hexanone	ND	10		µg/L	1	6/12/2014 5:35:37 AM	R19202
Isopropylbenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
4-Isopropyltoluene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
4-Methyl-2-pentanone	ND	10		µg/L	1	6/12/2014 5:35:37 AM	R19202
Methylene Chloride	ND	3.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
n-Butylbenzene	ND	3.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
n-Propylbenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
sec-Butylbenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Styrene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
tert-Butylbenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
trans-1,2-DCE	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Trichlorofluoromethane	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Vinyl chloride	ND	1.0		µg/L	1	6/12/2014 5:35:37 AM	R19202
Xylenes, Total	ND	1.5		µg/L	1	6/12/2014 5:35:37 AM	R19202
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	6/12/2014 5:35:37 AM	R19202
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/12/2014 5:35:37 AM	R19202
Surr: Dibromofluoromethane	115	70-130		%REC	1	6/12/2014 5:35:37 AM	R19202
Surr: Toluene-d8	102	70-130		%REC	1	6/12/2014 5:35:37 AM	R19202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: cadg
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/12/2014 5:35:37 AM	R19202
Surr: BFB	96.9	70-130		%REC	1	6/12/2014 5:35:37 AM	R19202

Refer to the QC Summary report and 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 greater than 2.
	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#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R19227			RunNo: 19227					
Prep Date:		Analysis Date: 6/12/2014			SeqNo: 555952		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		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19227		RunNo: 19227					
Prep Date:			Analysis Date: 6/12/2014		SeqNo: 555953		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	0.50	0.0020	0.5000	0	99.8	85	115			
Chromium	0.49	0.0060	0.5000	0	98.3	85	115			
Copper	0.49	0.0060	0.5000	0	98.2	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Silver	0.099	0.0050	0.1000	0	98.8	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R19281			RunNo: 19281					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557419		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
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: R19281		RunNo: 19281					
Prep Date:			Analysis Date: 6/13/2014		SeqNo: 557420		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			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406364-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-2		Batch ID: 13717			RunNo: 19331				
Prep Date:	6/16/2014		Analysis Date: 6/17/2014			SeqNo: 558727		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.77	0.0020	0.5000	0.1962	115	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.49	0.0060	0.5000	0.004070	96.2	70	130			
Copper	0.51	0.0060	0.5000	0.004700	101	70	130			
Magnesium	68	1.0	50.00	17.39	101	70	130			
Potassium	65	1.0	50.00	9.193	111	70	130			

Sample ID	1406364-002FMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-2		Batch ID: 13717			RunNo: 19331				
Prep Date:	6/16/2014		Analysis Date: 6/17/2014			SeqNo: 558728		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.78	0.0020	0.5000	0.1962	118	70	130	1.36	20	
Cadmium	0.49	0.0020	0.5000	0	98.1	70	130	5.58	20	
Chromium	0.49	0.0060	0.5000	0.004070	97.3	70	130	1.11	20	
Copper	0.52	0.0060	0.5000	0.004700	102	70	130	1.10	20	
Magnesium	67	1.0	50.00	17.39	99.5	70	130	0.806	20	
Potassium	64	1.0	50.00	9.193	110	70	130	1.16	20	

Sample ID	MB-13717		SampType: MBLK			TestCode: EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID: 13717			RunNo: 19331				
Prep Date:	6/16/2014		Analysis Date: 6/17/2014			SeqNo: 558754		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								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-13717		SampType: LCS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID: 13717			RunNo: 19331				
Prep Date:	6/16/2014		Analysis Date: 6/17/2014			SeqNo: 558755		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS-13717		SampType: LCS		TestCode: EPA Method 200.7: Total Metals						
Client ID:	LCSW		Batch ID: 13717		RunNo: 19331						
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558755		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	99.6	85	115				
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115				
Calcium	51	1.0	50.00	0	101	85	115				
Chromium	0.49	0.0060	0.5000	0	97.5	85	115				
Copper	0.49	0.0060	0.5000	0	97.9	85	115				
Magnesium	51	1.0	50.00	0	101	85	115				
Manganese	0.51	0.0020	0.5000	0	101	85	115				
Silver	0.098	0.0050	0.1000	0	98.0	85	115				
Sodium	50	1.0	50.00	0	99.8	85	115				
Zinc	0.51	0.010	0.5000	0	103	85	115				

Sample ID	MB-13717		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 13717		RunNo: 19331					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558756		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								

Sample ID	LCS-13717		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 13717		RunNo: 19331					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558757		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	50	1.0	50.00	0	99.7	85	115			

Sample ID	1406364-002FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-2		Batch ID: 13717		RunNo: 19357					
Prep Date:	6/16/2014		Analysis Date: 6/18/2014		SeqNo: 559774		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0.01675	92.1	70	130			

Sample ID	1406364-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-2		Batch ID: 13717		RunNo: 19357					
Prep Date:	6/16/2014		Analysis Date: 6/18/2014		SeqNo: 559775		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0.01675	91.7	70	130	0.325	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 greater than 2.
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#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406364-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-2		Batch ID: 13717			RunNo: 19357				
Prep Date:	6/16/2014		Analysis Date: 6/18/2014			SeqNo: 559777		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	150	5.0	50.00	105.3	94.2	70	130			
Manganese	1.2	0.010	0.5000	0.7036	98.4	70	130			

Sample ID	1406364-002FMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-2		Batch ID: 13717			RunNo: 19357				
Prep Date:	6/16/2014		Analysis Date: 6/18/2014			SeqNo: 559778		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	150	5.0	50.00	105.3	85.8	70	130	2.81	20	
Manganese	1.2	0.010	0.5000	0.7036	96.2	70	130	0.895	20	

Sample ID	MB-13717		SampType: MBLK			TestCode: EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID: 13717			RunNo: 19357				
Prep Date:	6/16/2014		Analysis Date: 6/18/2014			SeqNo: 559813		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020								

Sample ID	LCS-13717		SampType: LCS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID: 13717			RunNo: 19357				
Prep Date:	6/16/2014		Analysis Date: 6/18/2014			SeqNo: 559814		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.53	0.020	0.5000	0	107	85	115			B

Sample ID	1406364-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-2		Batch ID: 13717			RunNo: 19365				
Prep Date:	6/16/2014		Analysis Date: 6/18/2014			SeqNo: 560153		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	106	70	130			

Sample ID	1406364-002FMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-2		Batch ID: 13717			RunNo: 19365				
Prep Date:	6/16/2014		Analysis Date: 6/18/2014			SeqNo: 560154		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	106	70	130	0.199	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560092		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			
Lead	0.024	0.0010	0.02500	0	94.8	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.7	85	115			
Lead	0.023	0.0010	0.02500	0	93.9	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19364			RunNo: 19364					
Prep Date:		Analysis Date: 6/18/2014			SeqNo: 560094		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19364			RunNo: 19364					
Prep Date:		Analysis Date: 6/18/2014			SeqNo: 560095		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Sample ID	LCS RR		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19449		RunNo: 19449					
Prep Date:			Analysis Date: 6/20/2014		SeqNo: 562633		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	95.9	85	115			

Sample ID	LCS RR		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19449		RunNo: 19449					
Prep Date:			Analysis Date: 6/20/2014		SeqNo: 562635		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	93.4	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID MB RR	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R19449		RunNo: 19449							
Prep Date:	Analysis Date: 6/20/2014		SeqNo: 562637		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID MB RR	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R19449		RunNo: 19449							
Prep Date:	Analysis Date: 6/20/2014		SeqNo: 562639		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564692		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	96.3	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564693		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	95.8	85	115			
Uranium	0.025	0.0010	0.02500	0	99.1	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564694		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564695		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406364-010FMSDL			SampType:	MSDLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-18			Batch ID:	13717			RunNo:	19343		
Prep Date:	6/16/2014			Analysis Date:	6/17/2014			SeqNo:	559194		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.047	0.0050	0.02500	0.02238	99.8	70	130	1.17	20		

Sample ID	1406364-010FMSLL			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-18			Batch ID:	13717			RunNo:	19343		
Prep Date:	6/16/2014			Analysis Date:	6/17/2014			SeqNo:	559195		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.048	0.0050	0.02500	0.02238	102	70	130				

Sample ID	LLLCS-13717			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	13717			RunNo:	19343		
Prep Date:	6/16/2014			Analysis Date:	6/17/2014			SeqNo:	559197		
								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	0.025	0.0010	0.02500	0	98.4	85	115				
Selenium	0.025	0.0010	0.02500	0	100	85	115				
Uranium	0.023	0.0010	0.02500	0	93.0	85	115				

Sample ID	MB-13717			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	13717			RunNo:	19343		
Prep Date:	6/16/2014			Analysis Date:	6/17/2014			SeqNo:	559199		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

Sample ID	1406364-010FMSDL			SampType:	MSDLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-18			Batch ID:	13717			RunNo:	19535		
Prep Date:	6/16/2014			Analysis Date:	6/26/2014			SeqNo:	565861		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.028	0.0050	0.02500	0.01348	57.3	70	130	4.06	20	S	
Selenium	0.020	0.0050	0.02500	0.01258	27.9	70	130	3.61	20	S	

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID		1406364-010FMSLL		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total				
Client ID:		MKTF-18		Batch ID: 13717		RunNo: 19535				
Prep Date:		6/16/2014		Analysis Date: 6/26/2014		SeqNo: 565862		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.01348	61.9	70	130			S
Selenium	0.020	0.0050	0.02500	0.01258	30.8	70	130			S

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13740	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	13740	RunNo:	19350					
Prep Date:	6/17/2014	Analysis Date:	6/18/2014	SeqNo:	559471	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-13740	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	13740	RunNo:	19350					
Prep Date:	6/17/2014	Analysis Date:	6/18/2014	SeqNo:	559472	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	97.8	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R19161		RunNo: 19161							
Prep Date:	Analysis Date: 6/9/2014		SeqNo: 553729		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: R19161		RunNo: 19161							
Prep Date:	Analysis Date: 6/9/2014		SeqNo: 553730		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	97.0	90	110			
Chloride	4.7	0.50	5.000	0	95.0	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.9	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.4	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R19161		RunNo: 19161							
Prep Date:	Analysis Date: 6/9/2014		SeqNo: 553777		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: R19161		RunNo: 19161							
Prep Date:	Analysis Date: 6/9/2014		SeqNo: 553778		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	97.9	90	110			
Chloride	4.6	0.50	5.000	0	92.0	90	110			
Bromide	2.4	0.10	2.500	0	95.5	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R19161			RunNo: 19161						
Prep Date:	Analysis Date: 6/9/2014			SeqNo: 553778		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.4	0.50	10.00	0	93.8	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.5	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R19165			RunNo: 19165						
Prep Date:	Analysis Date: 6/9/2014			SeqNo: 553915		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: R19165			RunNo: 19165						
Prep Date:	Analysis Date: 6/9/2014			SeqNo: 553916		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.7	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R19191			RunNo: 19191						
Prep Date:	Analysis Date: 6/10/2014			SeqNo: 554760		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: R19191			RunNo: 19191						
Prep Date:	Analysis Date: 6/10/2014			SeqNo: 554761		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	91.7	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.9	90	110			

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 greater than 2.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13583		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554465		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		103	62.7	145			

Sample ID	LCS-13583		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554466		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	97.4	78.6	146			
Surr: DNOP	0.46		0.5000		91.3	62.7	145			

Sample ID	LCSD-13583		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554468		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	78.6	146	9.06	26.5	
Surr: DNOP	0.44		0.5000		88.0	62.7	145	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R19202			RunNo: 19202					
Prep Date:		Analysis Date: 6/11/2014			SeqNo: 555226	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R19202	RunNo:	19202					
Prep Date:		Analysis Date:	6/11/2014	SeqNo:	555226	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		101	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.1	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R19202	RunNo:	19202					
Prep Date:		Analysis Date:	6/11/2014	SeqNo:	555257	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	19	1.0	20.00	0	92.5	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R19202			RunNo: 19202						
Prep Date:	Analysis Date: 6/11/2014			SeqNo: 555257		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	111	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	93.5	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.9	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID 1406364-001a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-1	Batch ID: R19202			RunNo: 19202						
Prep Date:	Analysis Date: 6/11/2014			SeqNo: 555274		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	9400	50	1000	8261	111	70	130			E
Toluene	7000	50	1000	5991	105	67.5	123			E
Chlorobenzene	950	50	1000	0	95.3	70	130			
1,1-Dichloroethene	1200	50	1000	35.12	114	81.9	134			
Trichloroethene (TCE)	940	50	1000	0	93.6	70	130			
Surr: 1,2-Dichloroethane-d4	500		500.0		99.9	70	130			
Surr: 4-Bromofluorobenzene	460		500.0		92.7	70	130			
Surr: Dibromofluoromethane	480		500.0		96.3	70	130			
Surr: Toluene-d8	480		500.0		96.9	70	130			

Sample ID 1406364-001a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-1	Batch ID: R19202			RunNo: 19202						
Prep Date:	Analysis Date: 6/11/2014			SeqNo: 555275		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8700	50	1000	8261	48.0	70	130	6.98	20	ES
Toluene	7000	50	1000	5991	98.1	67.5	123	1.03	20	E
Chlorobenzene	960	50	1000	0	95.7	70	130	0.506	20	
1,1-Dichloroethene	1100	50	1000	35.12	102	81.9	134	10.4	20	
Trichloroethene (TCE)	880	50	1000	0	87.5	70	130	6.74	20	
Surr: 1,2-Dichloroethane-d4	490		500.0		98.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	470		500.0		93.2	70	130	0	0	
Surr: Dibromofluoromethane	470		500.0		95.0	70	130	0	0	
Surr: Toluene-d8	500		500.0		101	70	130	0	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 greater than 2.
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#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R19253			RunNo: 19253					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557108		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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R19253			RunNo: 19253					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557108		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		94.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100ng lcs 200ng an	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R19253			RunNo: 19253					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557110		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.0	70	130			
Toluene	20	1.0	20.00	0	99.0	80	120			
Chlorobenzene	18	1.0	20.00	0	90.2	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 greater than 2.
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#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	100ng lcs 200ng an	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R19253			RunNo: 19253					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557110		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	99.4	82.6	131			
Trichloroethene (TCE)	17	1.0	20.00	0	85.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.5	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.3	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.3	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	mb-13597	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	13597	RunNo:	19174					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554254	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	mb-13597	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	13597	RunNo:	19174					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554254	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	20								
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		62.8	12.1	85.8			
Surr: Phenol-d5	110		200.0		54.1	17.7	65.8			
Surr: 2,4,6-Tribromophenol	180		200.0		88.5	26	138			
Surr: Nitrobenzene-d5	98		100.0		98.1	47.5	119			
Surr: 2-Fluorobiphenyl	97		100.0		96.7	48.1	106			
Surr: 4-Terphenyl-d14	96		100.0		96.2	44	113			

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 greater than 2.
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#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	lcs-13597		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554255		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.1	50.3	109			
4-Chloro-3-methylphenol	140	10	200.0	0	67.6	51.2	113			
2-Chlorophenol	120	10	200.0	0	57.6	48.5	104			
1,4-Dichlorobenzene	69	10	100.0	0	68.8	39.5	106			
2,4-Dinitrotoluene	69	10	100.0	0	68.7	45.4	107			
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.1	50.4	119			
4-Nitrophenol	70	10	200.0	0	35.1	15.5	62.2			
Pentachlorophenol	71	20	200.0	0	35.5	23.5	93.5			
Phenol	97	10	200.0	0	48.7	26.8	65.6			
Pyrene	81	10	100.0	0	81.4	54.4	108			
1,2,4-Trichlorobenzene	67	10	100.0	0	66.7	39.9	106			
Surr: 2-Fluorophenol	88		200.0		43.8	12.1	85.8			
Surr: Phenol-d5	110		200.0		53.2	17.7	65.8			
Surr: 2,4,6-Tribromophenol	93		200.0		46.5	26	138			
Surr: Nitrobenzene-d5	75		100.0		74.8	47.5	119			
Surr: 2-Fluorobiphenyl	72		100.0		72.0	48.1	106			
Surr: 4-Terphenyl-d14	75		100.0		75.4	44	113			

Sample ID	lcsd-13597		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554256		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	50.3	109	10.4	27.2	
4-Chloro-3-methylphenol	140	10	200.0	0	68.5	51.2	113	1.34	25.9	
2-Chlorophenol	100	10	200.0	0	51.9	48.5	104	10.5	22.5	
1,4-Dichlorobenzene	60	10	100.0	0	60.2	39.5	106	13.3	24.6	
2,4-Dinitrotoluene	65	10	100.0	0	65.2	45.4	107	5.17	25.3	
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.6	50.4	119	17.6	23.6	
4-Nitrophenol	73	10	200.0	0	36.3	15.5	62.2	3.33	34.7	
Pentachlorophenol	66	20	200.0	0	33.1	23.5	93.5	7.12	32.8	
Phenol	93	10	200.0	0	46.3	26.8	65.6	5.03	25.5	
Pyrene	91	10	100.0	0	91.4	54.4	108	11.6	31.4	
1,2,4-Trichlorobenzene	58	10	100.0	0	58.0	39.9	106	13.9	25.9	
Surr: 2-Fluorophenol	84		200.0		41.9	12.1	85.8	0	0	
Surr: Phenol-d5	99		200.0		49.7	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	82		200.0		40.8	26	138	0	0	
Surr: Nitrobenzene-d5	66		100.0		65.8	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	64		100.0		63.7	48.1	106	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	lcscd-13597	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	13597	RunNo:	19174					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554256	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	74		100.0		73.9	44	113	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R19202	RunNo:	19202					
Prep Date:		Analysis Date:	6/11/2014	SeqNo:	555295	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	9.3		10.00		93.5	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R19202	RunNo:	19202					
Prep Date:		Analysis Date:	6/11/2014	SeqNo:	555297	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	120			
Surr: BFB	9.9		10.00		98.9	70	130			

Sample ID	1406364-002B MS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-2	Batch ID:	R19202	RunNo:	19202					
Prep Date:		Analysis Date:	6/11/2014	SeqNo:	555306	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.9	0.050	0.5000	1.488	87.4	70	130			
Surr: BFB	9.5		10.00		95.2	70	130			

Sample ID	1406364-002B MSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-2	Batch ID:	R19202	RunNo:	19202					
Prep Date:		Analysis Date:	6/11/2014	SeqNo:	555307	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.8	0.050	0.5000	1.488	63.0	70	130	6.54	20	S
Surr: BFB	9.6		10.00		96.1	70	130	0	0	

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R19253	RunNo:	19253					
Prep Date:		Analysis Date:	6/13/2014	SeqNo:	557149	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		96.3	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R19253	RunNo:	19253					
Prep Date:		Analysis Date:	6/13/2014	SeqNo:	557153	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406364

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R19253	RunNo:	19253					
Prep Date:		Analysis Date:	6/13/2014	SeqNo:	557153	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	98.1	80	120			
Surr: BFB	9.5		10.00		94.7	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 greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1406364

RcptNo: 1

Received by/date: mg 06/06/14

Logged By: **Michelle Garcia** 6/6/2014 3:50:00 PM

Michelle Garcia

Completed By: **Michelle Garcia** 6/9/2014 9:34:19 AM

Michelle Garcia

Reviewed By: [Signature] 06/09/14

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? SEE RE MARKS 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: 26
(2 or >12 unless noted)
Adjusted? YES
Checked by: [Signature]

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<u>[Signature]</u>	Date:	<u>06/09/14</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 1mL HNO₃ TO -005F, -008F, & -D10F FOR ACCEPTABLE PH.
18. Cooler Information: FOR DISS. METALS ANALYSIS: ADDED 0.4mL HNO₃ TO -005G, FOR ACCEPTABLE PH. HELD IN

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

LOG IN FOR 24 HOURS AFTER PRESERVATION. [Signature] 06/09/14 @1130

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) Trihydro Format

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2014 2nd Quarter

Project #:

MKTF WELLS

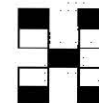
Project Manager:

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

Sampler: PLBS

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8260+MTBE	8015B extended	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	Air Bubbles (Y or N)
6/6/14	1135	H2O	MKTF-1			-001	X	X	X	X	X	X	
6/6/14	1130	H2O	MKTF-2			-002	X	X	X	X	X	X	
		H2O	MKTF-3				X	X	X	X	X	X	
6/9/14	1610	H2O	MKTF-4			-003	X	X	X	X	X	X	
		H2O	MKTF-5				X	X	X	X	X	X	
6/6/14		H2O	MKTF-6				X	X	X	X	X	X	
		H2O	MKTF-7				X	X	X	X	X	X	
		H2O	MKTF-8				X	X	X	X	X	X	
6/5/14	1730	H2O	MKTF-9			-004	X	X	X	X	X	X	
6/5/14	1430	H2O	MKTF-10 *			-005	X	X	X	X	X	X	
6/5/14	1515	H2O	MKTF-11			-006	X	X	X	X	X	X	
		H2O	MKTF-12				X	X	X	X	X	X	

Date: 6/6/14 Time: 1550 Relinquished by: Pam Handers Received by: M. White Date: 6/6/14 Time: 1550

Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

Page 1 of 2

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.

* - Did not collect full bottle set

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) Trihydro Format

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 2014 2nd Quarter

Project #: MKTF WELLS

Project Manager: C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: _____
 On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8260+MTBE	8015B extended	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	Air Bubbles (Y or N)
		H2O	MKTF-13				X	X	X	X	X	X	
		H2O	MKTF-14				X	X	X	X	X	X	
6/5/14	1500	H2O	MKTF-15			-007	X	X	X	X	X	X	
6/5/14	1635	H2O	MKTF-16			-008	X	X	X	X	X	X	
6/6/14	1015	H2O	MKTF-17 *			-009	X	X	X	X	X	X	
6/6/14	920	H2O	MKTF-18 *			-010	X	X	X	X	X	X	
6/4/14	1700	H2O	FB-GROUP4-060914			-011	X	X	X	X	X	X	
6/5/14	1830	H2O	ER-H1-6/5/14			-012	X	X	X	X	X	X	
6/5/14	1845	H2O	ER-H2-6/5/14			-013	X	X	X	X	X	X	
6/4/14		H2O	ISD-MKTF-6/4/14			-014	X	X	X	X	X	X	
			TB			-015	X	X	X	X	X	X	

Date: 6/6/14 Time: 1550 Relinquished by: Pax Sanders Received by: [Signature] Date: 6/6/14 Time: 1550

Date: _____ Time: _____ Relinquished by: _____ Received by: _____ Date: _____ Time: _____

Remarks: Page 2 of 2

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 noted on the analytical report.

* - Did not collect full bottle set



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

December 11, 2014

Cheryl Johnson

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

RE: Q4 2014

OrderNo.: 1411599

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/15/2014 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 1411599

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q4 2014

Collection Date: 11/13/2014 12:30:00 PM

Lab ID: 1411599-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/18/2014 8:14:34 PM	16415
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/18/2014 8:14:34 PM	16415
Surr: DNOP	106	59-141		%REC	1	11/18/2014 8:14:34 PM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2014 7:21:00 PM	R22618
Surr: BFB	89.9	80-120		%REC	1	11/18/2014 7:21:00 PM	R22618
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.35	0.10		mg/L	1	11/17/2014 10:20:44 PM	R22603
Chloride	890	50		mg/L	100	12/1/2014 9:40:13 PM	R22875
Bromide	5.3	0.10		mg/L	1	11/17/2014 10:20:44 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/17/2014 10:20:44 PM	R22603
Sulfate	400	10		mg/L	20	11/17/2014 10:33:09 PM	R22603
Nitrate+Nitrite as N	19	1.0	*	mg/L	5	11/26/2014 12:58:03 PM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.041	0.0020		mg/L	1	11/24/2014 7:04:51 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 7:04:51 PM	R22755
Calcium	37	1.0		mg/L	1	11/24/2014 7:04:51 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 7:04:51 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 7:04:51 PM	R22755
Iron	ND	0.020		mg/L	1	11/24/2014 7:04:51 PM	R22755
Magnesium	6.1	1.0		mg/L	1	11/24/2014 7:04:51 PM	R22755
Manganese	ND	0.0020		mg/L	1	11/24/2014 7:04:51 PM	R22755
Potassium	3.0	1.0		mg/L	1	11/24/2014 7:04:51 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 7:04:51 PM	R22755
Sodium	880	20		mg/L	20	11/25/2014 2:39:34 PM	R22813
Zinc	0.089	0.010		mg/L	1	11/24/2014 7:04:51 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.11	0.0020		mg/L	1	11/20/2014 6:49:10 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:49:10 PM	16487
Chromium	0.010	0.0060		mg/L	1	11/20/2014 6:49:10 PM	16487
Copper	ND	0.0060		mg/L	1	11/20/2014 6:49:10 PM	16487
Iron	2.1	0.10	*	mg/L	5	11/24/2014 11:41:01 AM	16487
Manganese	0.070	0.0020	*	mg/L	1	11/20/2014 6:49:10 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:49:10 PM	16487
Zinc	0.063	0.010		mg/L	1	11/20/2014 6:49:10 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/2/2014 3:50:25 PM	R22885

Refer to the QC Summary report and 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 greater than 2.
	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 1411599

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q4 2014

Collection Date: 11/13/2014 12:30:00 PM

Lab ID: 1411599-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	12/2/2014 3:50:25 PM	R22885
Selenium	ND	0.050		mg/L	50	12/4/2014 12:01:45 PM	R22933
Uranium	0.039	0.010	*	mg/L	10	12/2/2014 3:50:25 PM	R22885
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.050		mg/L	50	12/3/2014 3:40:27 PM	16487
Lead	0.0034	0.0010		mg/L	1	11/26/2014 3:21:33 PM	16487
Selenium	ND	0.050		mg/L	50	12/3/2014 3:40:27 PM	16487
Uranium	0.039	0.0010	*	mg/L	1	11/26/2014 3:21:33 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 3:13:54 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Acenaphthylene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Aniline	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Anthracene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Azobenzene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Benz(a)anthracene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Benzo(a)pyrene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Benzo(b)fluoranthene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Benzo(k)fluoranthene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Benzoic acid	ND	20		µg/L	1	11/20/2014 12:29:37 PM	16481
Benzyl alcohol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Butyl benzyl phthalate	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Carbazole	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
4-Chloroaniline	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2-Chloronaphthalene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2-Chlorophenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Chrysene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Di-n-butyl phthalate	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Di-n-octyl phthalate	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481

Refer to the QC Summary report and 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 greater than 2.
	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 1411599

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q4 2014

Collection Date: 11/13/2014 12:30:00 PM

Lab ID: 1411599-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Dibenzofuran	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
1,2-Dichlorobenzene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
1,3-Dichlorobenzene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
1,4-Dichlorobenzene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Diethyl phthalate	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Dimethyl phthalate	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2,4-Dichlorophenol	ND	20		µg/L	1	11/20/2014 12:29:37 PM	16481
2,4-Dimethylphenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/20/2014 12:29:37 PM	16481
2,4-Dinitrophenol	ND	20		µg/L	1	11/20/2014 12:29:37 PM	16481
2,4-Dinitrotoluene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2,6-Dinitrotoluene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Fluoranthene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Fluorene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Hexachlorobenzene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Hexachlorobutadiene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Hexachloroethane	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Isophorone	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
1-Methylnaphthalene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2-Methylnaphthalene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2-Methylphenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
3+4-Methylphenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
N-Nitrosodimethylamine	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Naphthalene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2-Nitroaniline	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
3-Nitroaniline	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
4-Nitroaniline	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Nitrobenzene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2-Nitrophenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
4-Nitrophenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Pentachlorophenol	ND	20		µg/L	1	11/20/2014 12:29:37 PM	16481
Phenanthrene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Phenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481

Refer to the QC Summary report and 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 22
	E	Value 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 greater than 2.	
	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 1411599

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q4 2014

Collection Date: 11/13/2014 12:30:00 PM

Lab ID: 1411599-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Pyrene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Pyridine	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/20/2014 12:29:37 PM	16481
Surr: 2-Fluorophenol	21.7	17.6-104		%REC	1	11/20/2014 12:29:37 PM	16481
Surr: Phenol-d5	38.5	17.7-89.9		%REC	1	11/20/2014 12:29:37 PM	16481
Surr: 2,4,6-Tribromophenol	19.2	16.3-122		%REC	1	11/20/2014 12:29:37 PM	16481
Surr: Nitrobenzene-d5	78.6	45.3-117		%REC	1	11/20/2014 12:29:37 PM	16481
Surr: 2-Fluorobiphenyl	74.5	43-113		%REC	1	11/20/2014 12:29:37 PM	16481
Surr: 4-Terphenyl-d14	83.0	47.6-122		%REC	1	11/20/2014 12:29:37 PM	16481
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
Benzene	ND	1.0		µg/L	1	11/21/2014 1:30:34 AM	R22685
Toluene	ND	1.0		µg/L	1	11/21/2014 1:30:34 AM	R22685
Ethylbenzene	ND	1.0		µg/L	1	11/21/2014 1:30:34 AM	R22685
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/21/2014 1:30:34 AM	R22685
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/21/2014 1:30:34 AM	R22685
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/21/2014 1:30:34 AM	R22685
Xylenes, Total	ND	1.5		µg/L	1	11/21/2014 1:30:34 AM	R22685
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	1	11/21/2014 1:30:34 AM	R22685
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	1	11/21/2014 1:30:34 AM	R22685
Surr: Dibromofluoromethane	90.0	70-130		%REC	1	11/21/2014 1:30:34 AM	R22685
Surr: Toluene-d8	91.8	70-130		%REC	1	11/21/2014 1:30:34 AM	R22685

Refer to the QC Summary report and 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 greater than 2.
	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#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22755	RunNo:	22755					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	671448	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:	R22755	RunNo:	22755					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	671449	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	96.6	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.8	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	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.49	0.020	0.5000	0	97.8	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.47	0.0020	0.5000	0	93.5	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22813	RunNo:	22813					
Prep Date:		Analysis Date:	11/25/2014	SeqNo:	673337	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22813		RunNo: 22813					
Prep Date:			Analysis Date: 11/25/2014		SeqNo: 673338		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			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16487		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16487		RunNo: 22687					
Prep Date:	11/20/2014		Analysis Date: 11/20/2014		SeqNo: 669092		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-16487		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16487		RunNo: 22687					
Prep Date:	11/20/2014		Analysis Date: 11/20/2014		SeqNo: 669093		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	99.0	85	115			
Chromium	0.48	0.0060	0.5000	0	96.8	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.11	0.0050	0.1000	0	108	85	115			
Zinc	0.48	0.010	0.5000	0	96.7	85	115			

Sample ID	1411599-001GMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 16487		RunNo: 22687					
Prep Date:	11/20/2014		Analysis Date: 11/20/2014		SeqNo: 669226		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.59	0.0020	0.5000	0.1060	96.0	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.2	70	130			
Chromium	0.49	0.0060	0.5000	0.009950	95.7	70	130			
Copper	0.57	0.0060	0.5000	0.005830	112	70	130			
Manganese	0.54	0.0020	0.5000	0.07036	93.5	70	130			
Silver	0.11	0.0050	0.1000	0	113	70	130			
Zinc	0.54	0.010	0.5000	0.06255	94.7	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	1411599-001GMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 16487		RunNo: 22687					
Prep Date:	11/20/2014		Analysis Date: 11/20/2014		SeqNo: 669227		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0020	0.5000	0.1060	94.5	70	130	1.21	20	
Cadmium	0.49	0.0020	0.5000	0	97.3	70	130	0.0617	20	
Chromium	0.49	0.0060	0.5000	0.009950	95.9	70	130	0.192	20	
Copper	0.56	0.0060	0.5000	0.005830	111	70	130	0.595	20	
Manganese	0.54	0.0020	0.5000	0.07036	92.9	70	130	0.565	20	
Silver	0.11	0.0050	0.1000	0	111	70	130	1.04	20	
Zinc	0.54	0.010	0.5000	0.06255	94.6	70	130	0.0877	20	

Sample ID	1411599-001GMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 16487		RunNo: 22752					
Prep Date:	11/20/2014		Analysis Date: 11/24/2014		SeqNo: 671351		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.6	0.10	0.5000	2.134	299	70	130			S

Sample ID	1411599-001GMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	NAPIS-3			Batch ID:	16487		RunNo:	22752			
Prep Date:	11/20/2014			Analysis Date:	11/24/2014		SeqNo:	671355		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Iron	3.5	0.10	0.5000	2.134	282	70	130	2.27	20	S	

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22885		RunNo: 22885					
Prep Date:			Analysis Date: 12/2/2014		SeqNo: 675799		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	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22885		RunNo: 22885					
Prep Date:			Analysis Date: 12/2/2014		SeqNo: 675800		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	0.025	0.0010	0.02500	0	98.4	85	115			
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22885			RunNo: 22885					
Prep Date:		Analysis Date: 12/2/2014			SeqNo: 675801		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22885			RunNo: 22885					
Prep Date:		Analysis Date: 12/2/2014			SeqNo: 675802		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22933		RunNo: 22933					
Prep Date:			Analysis Date: 12/4/2014		SeqNo: 677289		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			

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 greater than 2.
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#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22933		RunNo: 22933					
Prep Date:			Analysis Date: 12/4/2014		SeqNo: 677290		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	95.5	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R22933		RunNo: 22933					
Prep Date:			Analysis Date: 12/4/2014		SeqNo: 677291		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R22933		RunNo: 22933					
Prep Date:			Analysis Date: 12/4/2014		SeqNo: 677292		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.
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LLLCS-16487		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 16487		RunNo: 22842					
Prep Date:	11/20/2014		Analysis Date: 11/26/2014		SeqNo: 674131		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	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB-16487		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 16487		RunNo: 22842					
Prep Date:	11/20/2014		Analysis Date: 11/26/2014		SeqNo: 674136		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16593	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	16593	RunNo:	22825					
Prep Date:	11/26/2014	Analysis Date:	11/26/2014	SeqNo:	673696	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-16593	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	16593	RunNo:	22825					
Prep Date:	11/26/2014	Analysis Date:	11/26/2014	SeqNo:	673697	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.
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R22603			RunNo: 22603					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 666596		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: R22603			RunNo: 22603					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 666597		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	96.7	90	110			
Bromide	2.5	0.10	2.500	0	99.7	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.5	90	110			
Sulfate	9.6	0.50	10.00	0	96.1	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R22603			RunNo: 22603					
Prep Date:		Analysis Date: 11/18/2014			SeqNo: 666650		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: R22603			RunNo: 22603					
Prep Date:		Analysis Date: 11/18/2014			SeqNo: 666651		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	97.4	90	110			
Bromide	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.7	90	110			
Sulfate	9.8	0.50	10.00	0	98.2	90	110			

Sample ID	MB		SampType: MBLK			TestCode: EPA Method 300.0: Anions				
Client ID:	PBW		Batch ID: R22848			RunNo: 22848				
Prep Date:			Analysis Date: 11/26/2014			SeqNo: 674415		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22848	RunNo:	22848					
Prep Date:		Analysis Date:	11/26/2014	SeqNo:	674415	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:	R22848	RunNo:	22848					
Prep Date:		Analysis Date:	11/26/2014	SeqNo:	674416	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	104	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22875	RunNo:	22875					
Prep Date:		Analysis Date:	12/1/2014	SeqNo:	675391	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:	R22875	RunNo:	22875					
Prep Date:		Analysis Date:	12/1/2014	SeqNo:	675392	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	97.0	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16415		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666747		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		101	59	141			

Sample ID	LCS-16415		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.6	69.7	142			
Surr: DNOP	0.60		0.5000		119	59	141			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R22618		RunNo: 22618					
Prep Date:			Analysis Date: 11/18/2014		SeqNo: 667070		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		88.4	80	120			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R22618		RunNo: 22618					
Prep Date:			Analysis Date: 11/18/2014		SeqNo: 667071		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	91.8	80	120			
Surr: BFB	19		20.00		94.0	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL-rb		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R22685		RunNo:	22685			
Prep Date:			Analysis Date:	11/20/2014		SeqNo:	668946	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								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.4	70	130			
Surr: Toluene-d8	9.1		10.00		91.5	70	130			

Sample ID	100ng Lcs200ngAnn		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R22685		RunNo:	22685			
Prep Date:			Analysis Date:	11/20/2014		SeqNo:	668948	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			
Toluene	22	1.0	20.00	0	111	80	120			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.0	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.4	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.5	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID	b2		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R22685		RunNo:	22685			
Prep Date:			Analysis Date:	11/20/2014		SeqNo:	668977	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								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.2	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.7	70	130			
Surr: Toluene-d8	8.8		10.00		88.3	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22685			RunNo: 22685					
Prep Date:		Analysis Date: 11/21/2014			SeqNo: 668979		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	22	1.0	20.00	0	109	80	120			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	10		10.00		99.6	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16481		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16481		RunNo: 22682					
Prep Date:	11/19/2014		Analysis Date: 11/20/2014		SeqNo: 668827		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	10	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16481		SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID: 16481			RunNo: 22682				
Prep Date:	11/19/2014		Analysis Date: 11/20/2014			SeqNo: 668827	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		72.8	17.6	104			
Surr: Phenol-d5	140		200.0		70.0	17.7	89.9			
Surr: 2,4,6-Tribromophenol	160		200.0		81.6	16.3	122			
Surr: Nitrobenzene-d5	70		100.0		69.6	45.3	117			
Surr: 2-Fluorobiphenyl	74		100.0		74.0	43	113			
Surr: 4-Terphenyl-d14	99		100.0		99.0	47.6	122			

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 greater than 2.
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#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcs-16481		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 16481		RunNo: 22682					
Prep Date:	11/19/2014		Analysis Date: 11/20/2014		SeqNo: 668828		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	79.8	47.9	114			
4-Chloro-3-methylphenol	180	10	200.0	0	88.4	51.7	122			
2-Chlorophenol	150	10	200.0	0	73.0	40.7	113			
1,4-Dichlorobenzene	70	10	100.0	0	69.9	39.6	99.9			
2,4-Dinitrotoluene	70	10	100.0	0	70.1	40.8	113			
N-Nitrosodi-n-propylamine	79	10	100.0	0	79.0	51.2	111			
4-Nitrophenol	170	10	200.0	0	85.4	15.7	86.9			
Pentachlorophenol	120	20	200.0	0	60.0	21.6	104			
Phenol	160	10	200.0	0	80.1	28.6	71.7			S
Pyrene	76	10	100.0	0	75.8	54.2	128			
1,2,4-Trichlorobenzene	72	10	100.0	0	72.1	40.9	101			
Surr: 2-Fluorophenol	130		200.0		63.8	17.6	104			
Surr: Phenol-d5	130		200.0		66.5	17.7	89.9			
Surr: 2,4,6-Tribromophenol	160		200.0		82.5	16.3	122			
Surr: Nitrobenzene-d5	67		100.0		66.8	45.3	117			
Surr: 2-Fluorobiphenyl	72		100.0		72.0	43	113			
Surr: 4-Terphenyl-d14	81		100.0		81.0	47.6	122			

Sample ID	lcsd-16481		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16481		RunNo: 22682					
Prep Date:	11/19/2014		Analysis Date: 11/20/2014		SeqNo: 668829		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	83	10	100.0	0	82.9	47.9	114	3.83	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	82.2	51.7	122	7.36	25.9	
2-Chlorophenol	140	10	200.0	0	71.6	40.7	113	1.87	22.5	
1,4-Dichlorobenzene	69	10	100.0	0	69.3	39.6	99.9	0.948	24.6	
2,4-Dinitrotoluene	71	10	100.0	0	70.8	40.8	113	0.966	25.3	
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.0	51.2	111	2.61	23.6	
4-Nitrophenol	180	10	200.0	0	88.7	15.7	86.9	3.77	34.7	S
Pentachlorophenol	130	20	200.0	0	63.1	21.6	104	4.97	32.8	
Phenol	160	10	200.0	0	78.3	28.6	71.7	2.37	25.5	S
Pyrene	81	10	100.0	0	81.1	54.2	128	6.83	31.4	
1,2,4-Trichlorobenzene	70	10	100.0	0	70.0	40.9	101	2.96	25.9	
Surr: 2-Fluorophenol	120		200.0		62.4	17.6	104	0	0	
Surr: Phenol-d5	130		200.0		64.7	17.7	89.9	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		85.0	16.3	122	0	0	
Surr: Nitrobenzene-d5	66		100.0		66.0	45.3	117	0	0	
Surr: 2-Fluorobiphenyl	74		100.0		74.2	43	113	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411599

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcsd-16481		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16481		RunNo: 22682					
Prep Date:	11/19/2014		Analysis Date: 11/20/2014		SeqNo: 668829		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	89		100.0		89.4	47.6	122	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 greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411599

RcptNo: 1

Received by/date:

SM

11/15/14

Logged By: Ashley Gallegos

11/15/2014 9:15:00 AM

Ag

Completed By: Ashley Gallegos

11/17/2014 9:44:26 AM

Ag

Reviewed By:

OS

11/17/14

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: 3
(≤ 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	1.9	Good	Yes			

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

? 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) _____

☒ Standard ☐ Rush

Q4 2014

Project #:

NAPIS-1,-2,-3,KA-3

Project Manager:

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

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.9°C

[illegible]

Date:	Time:	Relinquished by:
11-15-17	045	Pak Lander Pak Lander
Date:	Time:	Relinquished by:

Received by:	Date	Time
Garcia ME	11/5/14	9:15
Received by:	Date	Time

Remarks:	



**HALL ENVIRONI
ANALYSIS LABO**

WWW.FILIPINOTRIBES.COM

49C1 Hawkins NE - Albuquerque, NM

Tel. 505-345-3975 Fax 505-345-4100

Analysis Request



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

March 28, 2014

Cheryl Johnson

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

RE: Q1-2014 Groundwater Sampling

OrderNo.: 1403354

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/10/2014 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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 12:25:00 PM

Lab ID: 1403354-001

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2014 5:01:47 AM	12114
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2014 5:01:47 AM	12114
Surr: DNOP	115	62.7-145		%REC	1	3/12/2014 5:01:47 AM	12114
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/12/2014 11:29:30 PM	R17249
Surr: BFB	83.5	80.4-118		%REC	1	3/12/2014 11:29:30 PM	R17249
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/12/2014 11:29:30 PM	R17249
Benzene	ND	1.0		µg/L	1	3/12/2014 11:29:30 PM	R17249
Toluene	ND	1.0		µg/L	1	3/12/2014 11:29:30 PM	R17249
Ethylbenzene	ND	1.0		µg/L	1	3/12/2014 11:29:30 PM	R17249
Xylenes, Total	ND	2.0		µg/L	1	3/12/2014 11:29:30 PM	R17249
Surr: 4-Bromofluorobenzene	99.9	82.9-139		%REC	1	3/12/2014 11:29:30 PM	R17249
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	0.50		mg/L	5	3/12/2014 1:26:00 AM	R17243
Chloride	79	2.5		mg/L	5	3/12/2014 1:26:00 AM	R17243
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/12/2014 1:26:00 AM	R17243
Bromide	1.7	0.50		mg/L	5	3/12/2014 1:26:00 AM	R17243
Nitrogen, Nitrate (As N)	29	0.50	*	mg/L	5	3/12/2014 1:26:00 AM	R17243
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/12/2014 1:26:00 AM	R17243
Sulfate	180	2.5		mg/L	5	3/12/2014 1:26:00 AM	R17243
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.12	0.0020		mg/L	1	3/13/2014 1:33:33 PM	R17289
Cadmium	ND	0.0020		mg/L	1	3/13/2014 1:33:33 PM	R17289
Calcium	95	1.0		mg/L	1	3/13/2014 1:33:33 PM	R17289
Chromium	ND	0.0060		mg/L	1	3/13/2014 1:33:33 PM	R17289
Copper	ND	0.0060		mg/L	1	3/13/2014 1:33:33 PM	R17289
Iron	ND	0.020		mg/L	1	3/13/2014 1:33:33 PM	R17289
Magnesium	17	1.0		mg/L	1	3/13/2014 1:33:33 PM	R17289
Manganese	0.053	0.0020	*	mg/L	1	3/13/2014 1:33:33 PM	R17289
Potassium	ND	1.0		mg/L	1	3/13/2014 1:33:33 PM	R17289
Silver	ND	0.0050		mg/L	1	3/13/2014 1:33:33 PM	R17289
Sodium	330	5.0		mg/L	5	3/13/2014 1:35:21 PM	R17289
Zinc	0.017	0.010		mg/L	1	3/13/2014 1:33:33 PM	R17289
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.14	0.0020		mg/L	1	3/13/2014 5:39:28 PM	12123
Cadmium	ND	0.0020		mg/L	1	3/13/2014 5:39:28 PM	12123

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 12:25:00 PM

Lab ID: 1403354-001

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	ND	0.0060		mg/L	1	3/13/2014 5:39:28 PM	12123
Copper	ND	0.0060		mg/L	1	3/13/2014 5:39:28 PM	12123
Iron	0.28	0.020		mg/L	1	3/13/2014 5:39:28 PM	12123
Manganese	0.095	0.0020	*	mg/L	1	3/13/2014 5:39:28 PM	12123
Silver	ND	0.0050		mg/L	1	3/13/2014 5:39:28 PM	12123
Zinc	0.012	0.010		mg/L	1	3/13/2014 5:39:28 PM	12123
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	3/19/2014 2:19:52 PM	R17423
Lead	ND	0.0010		mg/L	1	3/18/2014 2:40:17 PM	R17401
Selenium	ND	0.0050		mg/L	5	3/19/2014 2:19:52 PM	R17423
Uranium	0.013	0.0010		mg/L	1	3/18/2014 2:40:17 PM	R17401
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0018	0.0010		mg/L	1	3/17/2014 4:15:01 PM	12123
Lead	ND	0.0010		mg/L	1	3/17/2014 4:15:01 PM	12123
Selenium	0.0055	0.0010		mg/L	1	3/17/2014 4:15:01 PM	12123
Uranium	0.013	0.0010		mg/L	1	3/17/2014 4:15:01 PM	12123
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	3/12/2014 12:44:22 PM	12133
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Acenaphthylene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Aniline	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Anthracene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Azobenzene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Benz(a)anthracene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Benzo(a)pyrene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Benzo(b)fluoranthene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Benzo(k)fluoranthene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Benzoic acid	ND	20		µg/L	1	3/12/2014 3:54:58 PM	12139
Benzyl alcohol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Butyl benzyl phthalate	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139

Refer to the QC Summary report and 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 48
	E	Value 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 greater than 2.	
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 12:25:00 PM

Lab ID: 1403354-001

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Carbazole	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
4-Chloroaniline	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2-Chloronaphthalene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2-Chlorophenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Chrysene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Di-n-butyl phthalate	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Di-n-octyl phthalate	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Dibenzofuran	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
1,2-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
1,3-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
1,4-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Diethyl phthalate	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Dimethyl phthalate	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2,4-Dichlorophenol	ND	20		µg/L	1	3/12/2014 3:54:58 PM	12139
2,4-Dimethylphenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/12/2014 3:54:58 PM	12139
2,4-Dinitrophenol	ND	20		µg/L	1	3/12/2014 3:54:58 PM	12139
2,4-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2,6-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Fluoranthene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Fluorene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Hexachlorobenzene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Hexachlorobutadiene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Hexachloroethane	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Isophorone	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
1-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2-Methylphenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
3+4-Methylphenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
N-Nitrosodimethylamine	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Naphthalene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139

Refer to the QC Summary report and 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 48
	E Value 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 greater than 2.	
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 12:25:00 PM

Lab ID: 1403354-001

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2-Nitroaniline	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
3-Nitroaniline	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
4-Nitroaniline	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Nitrobenzene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2-Nitrophenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
4-Nitrophenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Pentachlorophenol	ND	20		µg/L	1	3/12/2014 3:54:58 PM	12139
Phenanthrene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Phenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Pyrene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Pyridine	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/12/2014 3:54:58 PM	12139
Surr: 2-Fluorophenol	68.6	22.7-98		%REC	1	3/12/2014 3:54:58 PM	12139
Surr: Phenol-d5	49.6	23.4-74.9		%REC	1	3/12/2014 3:54:58 PM	12139
Surr: 2,4,6-Tribromophenol	99.4	23.3-111		%REC	1	3/12/2014 3:54:58 PM	12139
Surr: Nitrobenzene-d5	97.8	36.8-111		%REC	1	3/12/2014 3:54:58 PM	12139
Surr: 2-Fluorobiphenyl	93.6	38.3-110		%REC	1	3/12/2014 3:54:58 PM	12139
Surr: 4-Terphenyl-d14	89.2	52.1-116		%REC	1	3/12/2014 3:54:58 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 10:20:00 AM

Lab ID: 1403354-002

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	1.8	1.0		mg/L	1	3/12/2014 5:23:33 AM	12114
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2014 5:23:33 AM	12114
Surr: DNOP	109	62.7-145		%REC	1	3/12/2014 5:23:33 AM	12114
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	0.64	0.10		mg/L	2	3/13/2014 12:26:36 AM	R17249
Surr: BFB	110	80.4-118		%REC	2	3/13/2014 12:26:36 AM	R17249
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Methyl tert-butyl ether (MTBE)	210	25		µg/L	10	3/12/2014 11:58:02 PM	R17249
Benzene	67	2.0		µg/L	2	3/13/2014 12:26:36 AM	R17249
Toluene	ND	2.0		µg/L	2	3/13/2014 12:26:36 AM	R17249
Ethylbenzene	28	2.0		µg/L	2	3/13/2014 12:26:36 AM	R17249
Xylenes, Total	ND	4.0		µg/L	2	3/13/2014 12:26:36 AM	R17249
Surr: 4-Bromofluorobenzene	122	82.9-139		%REC	2	3/13/2014 12:26:36 AM	R17249
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.5	1.0		mg/L	10	3/12/2014 2:15:38 AM	R17243
Chloride	220	50		mg/L	100	3/12/2014 2:28:03 AM	R17243
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	3/12/2014 2:15:38 AM	R17243
Bromide	1.6	1.0		mg/L	10	3/12/2014 2:15:38 AM	R17243
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	3/12/2014 2:15:38 AM	R17243
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/12/2014 2:15:38 AM	R17243
Sulfate	10	5.0		mg/L	10	3/12/2014 2:15:38 AM	R17243
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	1.8	0.010		mg/L	5	3/13/2014 1:38:46 PM	R17289
Cadmium	ND	0.0020		mg/L	1	3/13/2014 1:37:11 PM	R17289
Calcium	88	1.0		mg/L	1	3/13/2014 1:37:11 PM	R17289
Chromium	ND	0.0060		mg/L	1	3/13/2014 1:37:11 PM	R17289
Copper	ND	0.0060		mg/L	1	3/13/2014 1:37:11 PM	R17289
Iron	1.8	0.10	*	mg/L	5	3/13/2014 1:38:46 PM	R17289
Magnesium	17	1.0		mg/L	1	3/13/2014 1:37:11 PM	R17289
Manganese	1.2	0.010	*	mg/L	5	3/13/2014 1:38:46 PM	R17289
Potassium	ND	1.0		mg/L	1	3/13/2014 1:37:11 PM	R17289
Silver	ND	0.0050		mg/L	1	3/13/2014 1:37:11 PM	R17289
Sodium	350	5.0		mg/L	5	3/13/2014 1:38:46 PM	R17289
Zinc	0.012	0.010		mg/L	1	3/13/2014 1:37:11 PM	R17289
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.5	0.010		mg/L	5	3/13/2014 6:01:06 PM	12123
Cadmium	ND	0.0020		mg/L	1	3/13/2014 5:59:25 PM	12123

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 10:20:00 AM

Lab ID: 1403354-002

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	ND	0.0060		mg/L	1	3/13/2014 5:59:25 PM	12123
Copper	ND	0.0060		mg/L	1	3/13/2014 5:59:25 PM	12123
Iron	2.9	0.10	*	mg/L	5	3/13/2014 6:01:06 PM	12123
Manganese	1.4	0.010	*	mg/L	5	3/13/2014 6:01:06 PM	12123
Silver	ND	0.0050		mg/L	1	3/13/2014 5:59:25 PM	12123
Zinc	ND	0.010		mg/L	1	3/13/2014 5:59:25 PM	12123
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0053	0.0050		mg/L	5	3/19/2014 2:22:37 PM	R17423
Lead	ND	0.0010		mg/L	1	3/18/2014 2:45:00 PM	R17401
Selenium	ND	0.0050		mg/L	5	3/19/2014 2:22:37 PM	R17423
Uranium	ND	0.0010		mg/L	1	3/18/2014 2:45:00 PM	R17401
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0060	0.0050		mg/L	5	3/17/2014 5:29:17 PM	12123
Lead	ND	0.0010		mg/L	1	3/17/2014 4:20:19 PM	12123
Selenium	0.0071	0.0050		mg/L	5	3/17/2014 5:29:17 PM	12123
Uranium	ND	0.0010		mg/L	1	3/17/2014 4:20:19 PM	12123
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	3/12/2014 12:46:06 PM	12133
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Acenaphthylene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Aniline	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Anthracene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Azobenzene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Benz(a)anthracene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Benzo(a)pyrene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Benzo(b)fluoranthene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Benzo(k)fluoranthene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Benzoic acid	ND	20		µg/L	1	3/12/2014 8:45:29 PM	12139
Benzyl alcohol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Butyl benzyl phthalate	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139

Refer to the QC Summary report and 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 48
	E	Value 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 greater than 2.	
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 10:20:00 AM

Lab ID: 1403354-002

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Carbazole	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
4-Chloroaniline	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2-Chloronaphthalene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2-Chlorophenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Chrysene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Di-n-butyl phthalate	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Di-n-octyl phthalate	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Dibenzofuran	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
1,2-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
1,3-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
1,4-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Diethyl phthalate	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Dimethyl phthalate	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2,4-Dichlorophenol	ND	20		µg/L	1	3/12/2014 8:45:29 PM	12139
2,4-Dimethylphenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/12/2014 8:45:29 PM	12139
2,4-Dinitrophenol	ND	20		µg/L	1	3/12/2014 8:45:29 PM	12139
2,4-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2,6-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Fluoranthene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Fluorene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Hexachlorobenzene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Hexachlorobutadiene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Hexachloroethane	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Isophorone	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
1-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2-Methylphenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
3+4-Methylphenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
N-Nitrosodimethylamine	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Naphthalene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139

Refer to the QC Summary report and 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 7 of 48
	E	Value 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 greater than 2.	
	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 **1403354**Date Reported: **3/28/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** NAPIS-2**Project:** Q1-2014 Groundwater Sampling**Collection Date:** 3/10/2014 10:20:00 AM**Lab ID:** 1403354-002**Matrix:** AQUEOUS**Received Date:** 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2-Nitroaniline	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
3-Nitroaniline	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
4-Nitroaniline	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Nitrobenzene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2-Nitrophenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
4-Nitrophenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Pentachlorophenol	ND	20		µg/L	1	3/12/2014 8:45:29 PM	12139
Phenanthrene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Phenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Pyrene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Pyridine	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/12/2014 8:45:29 PM	12139
Surr: 2-Fluorophenol	54.0	22.7-98		%REC	1	3/12/2014 8:45:29 PM	12139
Surr: Phenol-d5	39.5	23.4-74.9		%REC	1	3/12/2014 8:45:29 PM	12139
Surr: 2,4,6-Tribromophenol	91.8	23.3-111		%REC	1	3/12/2014 8:45:29 PM	12139
Surr: Nitrobenzene-d5	82.3	36.8-111		%REC	1	3/12/2014 8:45:29 PM	12139
Surr: 2-Fluorobiphenyl	72.9	38.3-110		%REC	1	3/12/2014 8:45:29 PM	12139
Surr: 4-Terphenyl-d14	78.4	52.1-116		%REC	1	3/12/2014 8:45:29 PM	12139

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 8 of 48
	E	Value 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 greater than 2.	
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:45:00 AM

Lab ID: 1403354-004

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2014 5:45:37 AM	12114
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2014 5:45:37 AM	12114
Surr: DNOP	121	62.7-145		%REC	1	3/12/2014 5:45:37 AM	12114
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/13/2014 1:23:42 AM	R17249
Surr: BFB	83.2	80.4-118		%REC	1	3/13/2014 1:23:42 AM	R17249
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/13/2014 1:23:42 AM	R17249
Benzene	ND	1.0		µg/L	1	3/13/2014 1:23:42 AM	R17249
Toluene	ND	1.0		µg/L	1	3/13/2014 1:23:42 AM	R17249
Ethylbenzene	ND	1.0		µg/L	1	3/13/2014 1:23:42 AM	R17249
Xylenes, Total	ND	2.0		µg/L	1	3/13/2014 1:23:42 AM	R17249
Surr: 4-Bromofluorobenzene	97.9	82.9-139		%REC	1	3/13/2014 1:23:42 AM	R17249
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	0.50		mg/L	5	3/12/2014 2:40:28 AM	R17243
Chloride	920	50		mg/L	100	3/17/2014 7:52:47 PM	R17389
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/12/2014 2:40:28 AM	R17243
Bromide	4.9	0.50		mg/L	5	3/12/2014 2:40:28 AM	R17243
Nitrogen, Nitrate (As N)	20	0.50	*	mg/L	5	3/12/2014 2:40:28 AM	R17243
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/12/2014 2:40:28 AM	R17243
Sulfate	430	10		mg/L	20	3/12/2014 2:52:53 AM	R17243
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.053	0.0020		mg/L	1	3/13/2014 1:46:13 PM	R17289
Cadmium	ND	0.0020		mg/L	1	3/13/2014 1:46:13 PM	R17289
Calcium	40	1.0		mg/L	1	3/13/2014 1:46:13 PM	R17289
Chromium	ND	0.0060		mg/L	1	3/13/2014 1:46:13 PM	R17289
Copper	ND	0.0060		mg/L	1	3/13/2014 1:46:13 PM	R17289
Iron	0.24	0.020		mg/L	1	3/13/2014 1:46:13 PM	R17289
Magnesium	6.5	1.0		mg/L	1	3/13/2014 1:46:13 PM	R17289
Manganese	0.0073	0.0020		mg/L	1	3/13/2014 1:46:13 PM	R17289
Potassium	3.5	1.0		mg/L	1	3/13/2014 1:46:13 PM	R17289
Silver	ND	0.0050		mg/L	1	3/17/2014 2:03:12 PM	R17380
Sodium	890	10		mg/L	10	3/13/2014 1:48:04 PM	R17289
Zinc	0.017	0.010		mg/L	1	3/13/2014 1:46:13 PM	R17289
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.22	0.0020		mg/L	1	3/13/2014 6:02:56 PM	12123
Cadmium	ND	0.0020		mg/L	1	3/13/2014 6:02:56 PM	12123

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 9 of 48
	E	Value 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 greater than 2.	
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:45:00 AM

Lab ID: 1403354-004

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	0.013	0.0060		mg/L	1	3/13/2014 6:02:56 PM	12123
Copper	0.0073	0.0060		mg/L	1	3/13/2014 6:02:56 PM	12123
Iron	4.3	0.10	*	mg/L	5	3/13/2014 6:04:44 PM	12123
Manganese	0.12	0.0020	*	mg/L	1	3/13/2014 6:02:56 PM	12123
Silver	ND	0.0050		mg/L	1	3/13/2014 6:02:56 PM	12123
Zinc	0.091	0.010		mg/L	1	3/13/2014 6:02:56 PM	12123
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	3/19/2014 2:30:57 PM	R17423
Lead	ND	0.0010		mg/L	1	3/18/2014 3:08:40 PM	R17401
Selenium	0.011	0.010		mg/L	10	3/19/2014 2:30:57 PM	R17423
Uranium	0.039	0.0010	*	mg/L	1	3/18/2014 3:08:40 PM	R17401
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	3/17/2014 5:34:35 PM	12123
Lead	0.0053	0.0010		mg/L	1	3/17/2014 4:25:37 PM	12123
Selenium	0.027	0.010		mg/L	10	3/17/2014 5:34:35 PM	12123
Uranium	0.036	0.0010	*	mg/L	1	3/17/2014 4:25:37 PM	12123
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	3/12/2014 12:47:50 PM	12133
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Acenaphthylene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Aniline	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Anthracene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Azobenzene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Benz(a)anthracene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Benzo(a)pyrene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Benzo(b)fluoranthene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Benzo(k)fluoranthene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Benzoic acid	ND	20		µg/L	1	3/12/2014 12:31:58 PM	12139
Benzyl alcohol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Butyl benzyl phthalate	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139

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	E	Value 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:45:00 AM

Lab ID: 1403354-004

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Carbazole	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
4-Chloroaniline	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2-Chloronaphthalene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2-Chlorophenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Chrysene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Di-n-butyl phthalate	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Di-n-octyl phthalate	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Dibenzofuran	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
1,2-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
1,3-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
1,4-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Diethyl phthalate	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Dimethyl phthalate	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2,4-Dichlorophenol	ND	20		µg/L	1	3/12/2014 12:31:58 PM	12139
2,4-Dimethylphenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/12/2014 12:31:58 PM	12139
2,4-Dinitrophenol	ND	20		µg/L	1	3/12/2014 12:31:58 PM	12139
2,4-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2,6-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Fluoranthene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Fluorene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Hexachlorobenzene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Hexachlorobutadiene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Hexachloroethane	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Isophorone	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
1-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2-Methylphenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
3+4-Methylphenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
N-Nitrosodimethylamine	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Naphthalene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:45:00 AM

Lab ID: 1403354-004

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2-Nitroaniline	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
3-Nitroaniline	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
4-Nitroaniline	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Nitrobenzene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2-Nitrophenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
4-Nitrophenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Pentachlorophenol	ND	20		µg/L	1	3/12/2014 12:31:58 PM	12139
Phenanthrene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Phenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Pyrene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Pyridine	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/12/2014 12:31:58 PM	12139
Surr: 2-Fluorophenol	59.3	22.7-98		%REC	1	3/12/2014 12:31:58 PM	12139
Surr: Phenol-d5	40.3	23.4-74.9		%REC	1	3/12/2014 12:31:58 PM	12139
Surr: 2,4,6-Tribromophenol	84.0	23.3-111		%REC	1	3/12/2014 12:31:58 PM	12139
Surr: Nitrobenzene-d5	87.7	36.8-111		%REC	1	3/12/2014 12:31:58 PM	12139
Surr: 2-Fluorobiphenyl	84.1	38.3-110		%REC	1	3/12/2014 12:31:58 PM	12139
Surr: 4-Terphenyl-d14	83.5	52.1-116		%REC	1	3/12/2014 12:31:58 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:10:00 AM

Lab ID: 1403354-005

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2014 6:07:32 AM	12114
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2014 6:07:32 AM	12114
Surr: DNOP	126	62.7-145		%REC	1	3/12/2014 6:07:32 AM	12114
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/13/2014 1:52:12 AM	R17249
Surr: BFB	82.8	80.4-118		%REC	1	3/13/2014 1:52:12 AM	R17249
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Methyl tert-butyl ether (MTBE)	3.9	2.5		µg/L	1	3/13/2014 1:52:12 AM	R17249
Benzene	ND	1.0		µg/L	1	3/13/2014 1:52:12 AM	R17249
Toluene	ND	1.0		µg/L	1	3/13/2014 1:52:12 AM	R17249
Ethylbenzene	ND	1.0		µg/L	1	3/13/2014 1:52:12 AM	R17249
Xylenes, Total	ND	2.0		µg/L	1	3/13/2014 1:52:12 AM	R17249
Surr: 4-Bromofluorobenzene	96.4	82.9-139		%REC	1	3/13/2014 1:52:12 AM	R17249
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.1	0.50		mg/L	5	3/12/2014 3:05:18 AM	R17243
Chloride	140	10		mg/L	20	3/12/2014 3:17:44 AM	R17243
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/12/2014 3:05:18 AM	R17243
Bromide	1.8	0.50		mg/L	5	3/12/2014 3:05:18 AM	R17243
Nitrogen, Nitrate (As N)	13	0.50	*	mg/L	5	3/12/2014 3:05:18 AM	R17243
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/12/2014 3:05:18 AM	R17243
Sulfate	72	2.5		mg/L	5	3/12/2014 3:05:18 AM	R17243
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.093	0.0020		mg/L	1	3/13/2014 1:49:54 PM	R17289
Cadmium	ND	0.0020		mg/L	1	3/13/2014 1:49:54 PM	R17289
Calcium	68	1.0		mg/L	1	3/13/2014 1:49:54 PM	R17289
Chromium	ND	0.0060		mg/L	1	3/13/2014 1:49:54 PM	R17289
Copper	ND	0.0060		mg/L	1	3/13/2014 1:49:54 PM	R17289
Iron	ND	0.020		mg/L	1	3/13/2014 1:49:54 PM	R17289
Magnesium	11	1.0		mg/L	1	3/13/2014 1:49:54 PM	R17289
Manganese	0.38	0.0020	*	mg/L	1	3/13/2014 1:49:54 PM	R17289
Potassium	1.1	1.0		mg/L	1	3/13/2014 1:49:54 PM	R17289
Silver	ND	0.0050		mg/L	1	3/17/2014 2:05:05 PM	R17380
Sodium	330	10		mg/L	10	3/13/2014 1:51:42 PM	R17289
Zinc	0.012	0.010		mg/L	1	3/13/2014 1:49:54 PM	R17289
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.11	0.0020		mg/L	1	3/13/2014 6:06:35 PM	12123
Cadmium	ND	0.0020		mg/L	1	3/13/2014 6:06:35 PM	12123

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:10:00 AM

Lab ID: 1403354-005

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	ND	0.0060		mg/L	1	3/13/2014 6:06:35 PM	12123
Copper	ND	0.0060		mg/L	1	3/13/2014 6:06:35 PM	12123
Iron	0.95	0.020	*	mg/L	1	3/13/2014 6:06:35 PM	12123
Manganese	0.26	0.0020	*	mg/L	1	3/13/2014 6:06:35 PM	12123
Silver	ND	0.0050		mg/L	1	3/13/2014 6:06:35 PM	12123
Zinc	0.016	0.010		mg/L	1	3/13/2014 6:06:35 PM	12123
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	3/19/2014 2:33:42 PM	R17423
Lead	ND	0.0010		mg/L	1	3/18/2014 3:13:23 PM	R17401
Selenium	ND	0.0050		mg/L	5	3/19/2014 2:33:42 PM	R17423
Uranium	0.048	0.0050	*	mg/L	5	3/19/2014 2:33:42 PM	R17423
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	3/17/2014 5:39:53 PM	12123
Lead	ND	0.0010		mg/L	1	3/17/2014 4:30:54 PM	12123
Selenium	0.0082	0.0050		mg/L	5	3/17/2014 5:39:53 PM	12123
Uranium	0.089	0.0050	*	mg/L	5	3/17/2014 5:39:53 PM	12123
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	3/12/2014 12:49:34 PM	12133
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Acenaphthylene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Aniline	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Anthracene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Azobenzene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Benz(a)anthracene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Benzo(a)pyrene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Benzo(b)fluoranthene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Benzo(k)fluoranthene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Benzoic acid	ND	20		µg/L	1	3/12/2014 6:19:42 PM	12139
Benzyl alcohol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Butyl benzyl phthalate	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:10:00 AM

Lab ID: 1403354-005

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Carbazole	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
4-Chloroaniline	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2-Chloronaphthalene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2-Chlorophenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Chrysene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Di-n-butyl phthalate	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Di-n-octyl phthalate	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Dibenzofuran	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
1,2-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
1,3-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
1,4-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Diethyl phthalate	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Dimethyl phthalate	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2,4-Dichlorophenol	ND	20		µg/L	1	3/12/2014 6:19:42 PM	12139
2,4-Dimethylphenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/12/2014 6:19:42 PM	12139
2,4-Dinitrophenol	ND	20		µg/L	1	3/12/2014 6:19:42 PM	12139
2,4-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2,6-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Fluoranthene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Fluorene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Hexachlorobenzene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Hexachlorobutadiene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Hexachloroethane	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Isophorone	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
1-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2-Methylphenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
3+4-Methylphenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
N-Nitrosodimethylamine	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Naphthalene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 11:10:00 AM

Lab ID: 1403354-005

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2-Nitroaniline	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
3-Nitroaniline	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
4-Nitroaniline	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Nitrobenzene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2-Nitrophenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
4-Nitrophenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Pentachlorophenol	ND	20		µg/L	1	3/12/2014 6:19:42 PM	12139
Phenanthrene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Phenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Pyrene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Pyridine	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/12/2014 6:19:42 PM	12139
Surr: 2-Fluorophenol	51.6	22.7-98		%REC	1	3/12/2014 6:19:42 PM	12139
Surr: Phenol-d5	39.8	23.4-74.9		%REC	1	3/12/2014 6:19:42 PM	12139
Surr: 2,4,6-Tribromophenol	87.6	23.3-111		%REC	1	3/12/2014 6:19:42 PM	12139
Surr: Nitrobenzene-d5	95.3	36.8-111		%REC	1	3/12/2014 6:19:42 PM	12139
Surr: 2-Fluorobiphenyl	81.6	38.3-110		%REC	1	3/12/2014 6:19:42 PM	12139
Surr: 4-Terphenyl-d14	81.4	52.1-116		%REC	1	3/12/2014 6:19:42 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 1:15:00 PM

Lab ID: 1403354-006

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	6.4	1.0		mg/L	1	3/12/2014 6:29:30 AM	12114
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2014 6:29:30 AM	12114
Surr: DNOP	112	62.7-145		%REC	1	3/12/2014 6:29:30 AM	12114
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	0.71	0.050		mg/L	1	3/13/2014 2:20:43 AM	R17249
Surr: BFB	203	80.4-118	S	%REC	1	3/13/2014 2:20:43 AM	R17249
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.7	1.0		mg/L	10	3/12/2014 3:30:09 AM	R17243
Chloride	1700	100		mg/L	200	3/17/2014 8:05:11 PM	R17389
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	3/12/2014 3:30:09 AM	R17243
Bromide	4.8	1.0		mg/L	10	3/12/2014 3:30:09 AM	R17243
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	3/12/2014 3:30:09 AM	R17243
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/12/2014 3:30:09 AM	R17243
Sulfate	37	5.0		mg/L	10	3/12/2014 3:30:09 AM	R17243
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.61	0.0020		mg/L	1	3/13/2014 1:53:31 PM	R17289
Cadmium	ND	0.0020		mg/L	1	3/13/2014 1:53:31 PM	R17289
Calcium	160	5.0		mg/L	5	3/13/2014 1:55:14 PM	R17289
Chromium	ND	0.0060		mg/L	1	3/13/2014 1:53:31 PM	R17289
Copper	ND	0.0060		mg/L	1	3/13/2014 1:53:31 PM	R17289
Iron	5.4	0.40	*	mg/L	20	3/13/2014 1:56:59 PM	R17289
Magnesium	28	1.0		mg/L	1	3/13/2014 1:53:31 PM	R17289
Manganese	2.0	0.010	*	mg/L	5	3/13/2014 1:55:14 PM	R17289
Potassium	4.5	1.0		mg/L	1	3/13/2014 1:53:31 PM	R17289
Silver	ND	0.0050		mg/L	1	3/17/2014 2:06:55 PM	R17380
Sodium	1300	20		mg/L	20	3/13/2014 1:56:59 PM	R17289
Zinc	0.046	0.010		mg/L	1	3/13/2014 1:53:31 PM	R17289
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.71	0.0020		mg/L	1	3/13/2014 6:10:03 PM	12123
Cadmium	ND	0.0020		mg/L	1	3/13/2014 6:10:03 PM	12123
Chromium	0.011	0.0060		mg/L	1	3/13/2014 6:10:03 PM	12123
Copper	0.025	0.0060		mg/L	1	3/13/2014 6:10:03 PM	12123
Iron	8.6	1.0	*	mg/L	50	3/13/2014 6:13:37 PM	12123
Manganese	2.1	0.010	*	mg/L	5	3/13/2014 6:11:58 PM	12123
Silver	ND	0.0050		mg/L	1	3/13/2014 6:10:03 PM	12123
Zinc	0.054	0.010		mg/L	1	3/13/2014 6:10:03 PM	12123

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 1:15:00 PM

Lab ID: 1403354-006

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0083	0.0050		mg/L	5	3/19/2014 2:36:28 PM	R17423
Lead	0.0079	0.0050		mg/L	5	3/18/2014 3:18:06 PM	R17401
Selenium	0.0084	0.0050		mg/L	5	3/19/2014 2:36:28 PM	R17423
Uranium	0.039	0.0050	*	mg/L	5	3/18/2014 3:18:06 PM	R17401
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	3/17/2014 5:45:13 PM	12123
Lead	0.017	0.0010	*	mg/L	1	3/17/2014 4:36:12 PM	12123
Selenium	0.026	0.010		mg/L	10	3/17/2014 5:45:13 PM	12123
Uranium	0.039	0.0010	*	mg/L	1	3/17/2014 4:36:12 PM	12123
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	3/12/2014 12:51:19 PM	12133
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Acenaphthylene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Aniline	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Anthracene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Azobenzene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Benz(a)anthracene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Benzo(a)pyrene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Benzo(b)fluoranthene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Benzo(k)fluoranthene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Benzoic acid	ND	20		µg/L	1	3/12/2014 1:00:58 PM	12139
Benzyl alcohol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Butyl benzyl phthalate	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Carbazole	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
4-Chloroaniline	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2-Chloronaphthalene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2-Chlorophenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Chrysene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Di-n-butyl phthalate	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 1:15:00 PM

Lab ID: 1403354-006

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 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	3/12/2014 1:00:58 PM	12139
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Dibenzofuran	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
1,2-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
1,3-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
1,4-Dichlorobenzene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Diethyl phthalate	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Dimethyl phthalate	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2,4-Dichlorophenol	ND	20		µg/L	1	3/12/2014 1:00:58 PM	12139
2,4-Dimethylphenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/12/2014 1:00:58 PM	12139
2,4-Dinitrophenol	ND	20		µg/L	1	3/12/2014 1:00:58 PM	12139
2,4-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2,6-Dinitrotoluene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Fluoranthene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Fluorene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Hexachlorobenzene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Hexachlorobutadiene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Hexachloroethane	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Isophorone	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
1-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2-Methylnaphthalene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2-Methylphenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
3+4-Methylphenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
N-Nitrosodimethylamine	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Naphthalene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2-Nitroaniline	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
3-Nitroaniline	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
4-Nitroaniline	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Nitrobenzene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2-Nitrophenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
4-Nitrophenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Pentachlorophenol	ND	20		µg/L	1	3/12/2014 1:00:58 PM	12139
Phenanthrene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 1:15:00 PM

Lab ID: 1403354-006

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Pyrene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Pyridine	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/12/2014 1:00:58 PM	12139
Surr: 2-Fluorophenol	51.1	22.7-98		%REC	1	3/12/2014 1:00:58 PM	12139
Surr: Phenol-d5	36.9	23.4-74.9		%REC	1	3/12/2014 1:00:58 PM	12139
Surr: 2,4,6-Tribromophenol	79.8	23.3-111		%REC	1	3/12/2014 1:00:58 PM	12139
Surr: Nitrobenzene-d5	81.1	36.8-111		%REC	1	3/12/2014 1:00:58 PM	12139
Surr: 2-Fluorobiphenyl	76.9	38.3-110		%REC	1	3/12/2014 1:00:58 PM	12139
Surr: 4-Terphenyl-d14	79.1	52.1-116		%REC	1	3/12/2014 1:00:58 PM	12139
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	70	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Toluene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Ethylbenzene	6.8	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Methyl tert-butyl ether (MTBE)	450	10		µg/L	10	3/13/2014 12:35:59 PM	R17303
1,2,4-Trimethylbenzene	2.5	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Naphthalene	ND	2.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1-Methylnaphthalene	13	4.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
2-Methylnaphthalene	ND	4.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Acetone	16	10		µg/L	1	3/17/2014 2:23:38 PM	R17375
Bromobenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Bromodichloromethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Bromoform	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Bromomethane	ND	3.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
2-Butanone	ND	10		µg/L	1	3/17/2014 2:23:38 PM	R17375
Carbon disulfide	ND	10		µg/L	1	3/17/2014 2:23:38 PM	R17375
Carbon Tetrachloride	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Chlorobenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Chloroethane	ND	2.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Chloroform	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Chloromethane	ND	3.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
2-Chlorotoluene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
4-Chlorotoluene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
cis-1,2-DCE	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 1:15:00 PM

Lab ID: 1403354-006

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Dibromochloromethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Dibromomethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,1-Dichloroethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,1-Dichloroethene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2-Dichloropropane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,3-Dichloropropane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
2,2-Dichloropropane	ND	2.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,1-Dichloropropene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Hexachlorobutadiene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
2-Hexanone	ND	10		µg/L	1	3/17/2014 2:23:38 PM	R17375
Isopropylbenzene	1.5	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
4-Isopropyltoluene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
4-Methyl-2-pentanone	ND	10		µg/L	1	3/17/2014 2:23:38 PM	R17375
Methylene Chloride	ND	3.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
n-Butylbenzene	ND	3.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
n-Propylbenzene	1.6	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
sec-Butylbenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Styrene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
tert-Butylbenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
trans-1,2-DCE	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Trichlorofluoromethane	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Vinyl chloride	ND	1.0		µg/L	1	3/17/2014 2:23:38 PM	R17375
Xylenes, Total	3.3	1.5		µg/L	1	3/17/2014 2:23:38 PM	R17375

Refer to the QC Summary report and 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 greater than 2.
	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 **1403354**

Date Reported: **3/28/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 1:15:00 PM

Lab ID: 1403354-006

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	3/17/2014 2:23:38 PM	R17375
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	3/17/2014 2:23:38 PM	R17375
Surr: Dibromofluoromethane	113	70-130		%REC	1	3/17/2014 2:23:38 PM	R17375
Surr: Toluene-d8	93.6	70-130		%REC	1	3/17/2014 2:23:38 PM	R17375

Refer to the QC Summary report and 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 22 of 48
	E	Value 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 greater than 2.	
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-Group#3-

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 9:25:00 AM

Lab ID: 1403354-007

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Toluene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Ethylbenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Naphthalene	ND	2.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
2-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Acetone	ND	10		µg/L	1	3/11/2014 8:51:55 PM	R17242
Bromobenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Bromodichloromethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Bromoform	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Bromomethane	ND	3.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
2-Butanone	ND	10		µg/L	1	3/11/2014 8:51:55 PM	R17242
Carbon disulfide	ND	10		µg/L	1	3/11/2014 8:51:55 PM	R17242
Carbon Tetrachloride	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Chlorobenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Chloroethane	ND	2.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Chloroform	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Chloromethane	ND	3.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
2-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
4-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
cis-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Dibromochloromethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Dibromomethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,1-Dichloroethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,1-Dichloroethene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,3-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
2,2-Dichloropropane	ND	2.0		µg/L	1	3/11/2014 8:51:55 PM	R17242

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-Group#3-

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 9:25:00 AM

Lab ID: 1403354-007

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
1,1-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Hexachlorobutadiene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
2-Hexanone	ND	10		µg/L	1	3/11/2014 8:51:55 PM	R17242
Isopropylbenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
4-Isopropyltoluene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
4-Methyl-2-pentanone	ND	10		µg/L	1	3/11/2014 8:51:55 PM	R17242
Methylene Chloride	ND	3.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
n-Butylbenzene	ND	3.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
n-Propylbenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
sec-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Styrene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
tert-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
trans-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Trichlorofluoromethane	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Vinyl chloride	ND	1.0		µg/L	1	3/11/2014 8:51:55 PM	R17242
Xylenes, Total	ND	1.5		µg/L	1	3/11/2014 8:51:55 PM	R17242
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	3/11/2014 8:51:55 PM	R17242
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	1	3/11/2014 8:51:55 PM	R17242
Surr: Dibromofluoromethane	99.1	70-130		%REC	1	3/11/2014 8:51:55 PM	R17242
Surr: Toluene-d8	92.8	70-130		%REC	1	3/11/2014 8:51:55 PM	R17242

Refer to the QC Summary report and 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 greater than 2.
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Q1-2014 Groundwater Sampling

Collection Date:

Lab ID: 1403354-008

Matrix: TRIP BLANK

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
Benzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Toluene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Ethylbenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Naphthalene	ND	2.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
2-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Acetone	ND	10		µg/L	1	3/11/2014 9:19:52 PM	R17242
Bromobenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Bromodichloromethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Bromoform	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Bromomethane	ND	3.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
2-Butanone	ND	10		µg/L	1	3/11/2014 9:19:52 PM	R17242
Carbon disulfide	ND	10		µg/L	1	3/11/2014 9:19:52 PM	R17242
Carbon Tetrachloride	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Chlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Chloroethane	ND	2.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Chloroform	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Chloromethane	ND	3.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
2-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
4-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
cis-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Dibromochloromethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Dibromomethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,1-Dichloroethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,1-Dichloroethene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,3-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
2,2-Dichloropropane	ND	2.0		µg/L	1	3/11/2014 9:19:52 PM	R17242

Refer to the QC Summary report and 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 25 of 48
	E	Value 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 greater than 2.	
	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 1403354

Date Reported: 3/28/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Q1-2014 Groundwater Sampling

Collection Date:

Lab ID: 1403354-008

Matrix: TRIP BLANK

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,1-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Hexachlorobutadiene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
2-Hexanone	ND	10		µg/L	1	3/11/2014 9:19:52 PM	R17242
Isopropylbenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
4-Isopropyltoluene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
4-Methyl-2-pentanone	ND	10		µg/L	1	3/11/2014 9:19:52 PM	R17242
Methylene Chloride	ND	3.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
n-Butylbenzene	ND	3.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
n-Propylbenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
sec-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Styrene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
tert-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
trans-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Trichlorofluoromethane	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Vinyl chloride	ND	1.0		µg/L	1	3/11/2014 9:19:52 PM	R17242
Xylenes, Total	ND	1.5		µg/L	1	3/11/2014 9:19:52 PM	R17242
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	1	3/11/2014 9:19:52 PM	R17242
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	1	3/11/2014 9:19:52 PM	R17242
Surr: Dibromofluoromethane	97.2	70-130		%REC	1	3/11/2014 9:19:52 PM	R17242
Surr: Toluene-d8	92.5	70-130		%REC	1	3/11/2014 9:19:52 PM	R17242

Refer to the QC Summary report and 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 greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

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

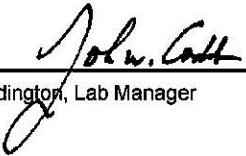
Client: HALL ENVIRONMENTAL ANALYSIS LAB **Batch #:** 140313052
Address: 4901 HAWKINS NE SUITE D **Project Name:** 1403354
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Analytical Results Report

Sample Number	140313052-001	Sampling Date	3/10/2014	Date/Time Received	3/13/2014 1:26 PM
Client Sample ID	1403354-006H / OAPIS-1	Sampling Time	1:15 PM		
Matrix	Water	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0846	mg/L	0.01	3/20/2014	CRW	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#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R17289			RunNo: 17289					
Prep Date:		Analysis Date: 3/13/2014			SeqNo: 498058		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: R17289		RunNo: 17289					
Prep Date:			Analysis Date: 3/13/2014		SeqNo: 498059		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	97.9	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	96.2	85	115			
Copper	0.48	0.0060	0.5000	0	96.5	85	115			
Iron	0.48	0.020	0.5000	0	95.5	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Potassium	50	1.0	50.00	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	51	1.0	50.00	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.2	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	PBW	Batch ID:	R17380		RunNo:	17380				
Prep Date:		Analysis Date:	3/17/2014		SeqNo:	500508	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17380		RunNo: 17380					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500509		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	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R17380			RunNo: 17380					
Prep Date:		Analysis Date: 3/17/2014			SeqNo: 500673		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17380		RunNo: 17380					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500674		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	102	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	1403354-001DMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	NAPIS-1			Batch ID:	12123		RunNo:	17291				
Prep Date:	3/11/2014			Analysis Date:	3/13/2014		SeqNo:	498233			Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Barium	0.64	0.0020	0.5000	0.1369	101	70	130					
Cadmium	0.50	0.0020	0.5000	0	99.1	70	130					
Chromium	0.49	0.0060	0.5000	0	98.1	70	130					
Copper	0.52	0.0060	0.5000	0	103	70	130					
Iron	0.89	0.020	0.5000	0.2846	121	70	130					
Manganese	0.62	0.0020	0.5000	0.09476	105	70	130					
Silver	0.096	0.0050	0.1000	0	96.0	70	130					
Zinc	0.52	0.010	0.5000	0.01156	102	70	130					

Sample ID	1403354-001DMSD			SampType: MSD	TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-1			Batch ID: 12123	RunNo: 17291					
Prep Date:	3/11/2014			Analysis Date: 3/13/2014	SeqNo: 498234			Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1369	98.2	70	130	2.12	20	
Cadmium	0.48	0.0020	0.5000	0	97.0	70	130	2.18	20	
Chromium	0.49	0.0060	0.5000	0	97.3	70	130	0.895	20	
Copper	0.50	0.0060	0.5000	0	101	70	130	2.22	20	
Iron	0.88	0.020	0.5000	0.2846	120	70	130	0.786	20	
Manganese	0.59	0.0020	0.5000	0.09476	99.5	70	130	4.36	20	
Silver	0.095	0.0050	0.1000	0	94.6	70	130	1.46	20	
Zinc	0.52	0.010	0.5000	0.01156	101	70	130	0.729	20	

Sample ID	MB-12123	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 12123			RunNo: 17291					
Prep Date:	3/11/2014	Analysis Date: 3/13/2014			SeqNo: 498282		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								

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 greater than 2.
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#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LCS-12123		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 12123		RunNo: 17291					
Prep Date:	3/11/2014		Analysis Date: 3/13/2014		SeqNo: 498283		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	99.7	85	115			
Cadmium	0.49	0.0020	0.5000	0	99.0	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.3	85	115			
Iron	0.53	0.020	0.5000	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	99.2	85	115			
Silver	0.098	0.0050	0.1000	0	98.2	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501192		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	102	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501193		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.028	0.0010	0.02500	0	110	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R17401			RunNo: 17401					
Prep Date:		Analysis Date: 3/18/2014			SeqNo: 501194		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R17401			RunNo: 17401					
Prep Date:		Analysis Date: 3/18/2014			SeqNo: 501195		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17423		RunNo: 17423					
Prep Date:			Analysis Date: 3/19/2014		SeqNo: 502016		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	97.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.2	85	115			
Uranium	0.025	0.0010	0.02500	0	98.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17423		RunNo: 17423					
Prep Date:			Analysis Date: 3/19/2014		SeqNo: 502017		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	99.1	85	115			
Selenium	0.024	0.0010	0.02500	0	97.2	85	115			
Uranium	0.025	0.0010	0.02500	0	99.8	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R17423			RunNo: 17423					
Prep Date:		Analysis Date: 3/19/2014			SeqNo: 502018		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	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R17423			RunNo: 17423					
Prep Date:		Analysis Date: 3/19/2014			SeqNo: 502019		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	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LLLCS-12123		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 12123		RunNo: 17381					
Prep Date:	3/11/2014		Analysis Date: 3/17/2014		SeqNo: 500705		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	95.2	85	115			
Lead	0.025	0.0010	0.02500	0	98.9	85	115			
Selenium	0.023	0.0010	0.02500	0	91.4	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB-12123		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 12123		RunNo: 17381					
Prep Date:	3/11/2014		Analysis Date: 3/17/2014		SeqNo: 500708		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12133	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	12133	RunNo:	17250					
Prep Date:	3/11/2014	Analysis Date:	3/12/2014	SeqNo:	496787	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-12133	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	12133	RunNo:	17250					
Prep Date:	3/11/2014	Analysis Date:	3/12/2014	SeqNo:	496788	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	106	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R17243	RunNo:	17243					
Prep Date:		Analysis Date:	3/11/2014	SeqNo:	496494	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:	R17243	RunNo:	17243					
Prep Date:		Analysis Date:	3/11/2014	SeqNo:	496495	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	103	90	110			
Chloride	4.8	0.50	5.000	0	95.9	90	110			
Nitrogen, Nitrite (As N)	0.99	0.10	1.000	0	98.5	90	110			
Bromide	2.5	0.10	2.500	0	101	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	97.4	90	110			
Sulfate	9.8	0.50	10.00	0	97.6	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R17389	RunNo:	17389					
Prep Date:		Analysis Date:	3/17/2014	SeqNo:	500825	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:	R17389	RunNo:	17389					
Prep Date:		Analysis Date:	3/17/2014	SeqNo:	500826	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	97.8	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12114	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW	Batch ID: 12114			RunNo: 17227					
Prep Date:	3/11/2014	Analysis Date: 3/12/2014			SeqNo: 496413		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		99.8	62.7	145			

Sample ID	LCSD-12114		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 12114		RunNo: 17227					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 496415		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	112	78.6	146	34.2	26.5	R
Surr: DNOP	0.62		0.5000		123	62.7	145	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R17249	RunNo:	17249					
Prep Date:		Analysis Date:	3/12/2014	SeqNo:	497282	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		84.7	80.4	118			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R17249	RunNo:	17249					
Prep Date:		Analysis Date:	3/12/2014	SeqNo:	497283	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	97.8	80	120			
Surr: BFB	18		20.00		91.5	80.4	118			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R17249	RunNo:	17249					
Prep Date:		Analysis Date:	3/12/2014	SeqNo:	497334	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		101	82.9	139			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R17249	RunNo:	17249					
Prep Date:		Analysis Date:	3/12/2014	SeqNo:	497340	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	96.8	71.1	128			
Benzene	24	1.0	20.00	0	118	80	120			
Toluene	24	1.0	20.00	0	121	80	120			S
Ethylbenzene	23	1.0	20.00	0	117	80	120			
Xylenes, Total	71	2.0	60.00	0	118	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		104	82.9	139			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup**Project:** Q1-2014 Groundwater Sampling

Sample ID	5ml-rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R17242			RunNo: 17242					
Prep Date:		Analysis Date: 3/11/2014			SeqNo: 496423		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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ml-rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R17242	RunNo:	17242					
Prep Date:		Analysis Date:	3/11/2014	SeqNo:	496423	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	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.4	70	130			
Surr: Dibromofluoromethane	8.1		10.00		80.5	70	130			
Surr: Toluene-d8	9.3		10.00		93.0	70	130			

Sample ID	100ngLCS200ngAnn	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R17242	RunNo:	17242					
Prep Date:		Analysis Date:	3/11/2014	SeqNo:	496454	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	19	1.0	20.00	0	96.9	80	120			
Chlorobenzene	19	1.0	20.00	0	94.8	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	100ngLCS200ngAnn			SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R17242		RunNo:	17242				
Prep Date:			Analysis Date:	3/11/2014		SeqNo:	496454		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	90	143				
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130				
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130				
Surr: 4-Bromofluorobenzene	9.1		10.00		91.2	70	130				
Surr: Dibromofluoromethane	8.6		10.00		85.8	70	130				
Surr: Toluene-d8	9.0		10.00		90.5	70	130				

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R17272			RunNo: 17272					
Prep Date:		Analysis Date: 3/12/2014			SeqNo: 497522		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.7	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.8	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.1		10.00		91.2	70	130			

Sample ID	100ng LCS2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R17272			RunNo: 17272					
Prep Date:		Analysis Date: 3/12/2014			SeqNo: 497524		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.5	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.7	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.3	70	130			
Surr: Toluene-d8	9.1		10.00		90.8	70	130			

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R17303			RunNo: 17303					
Prep Date:		Analysis Date: 3/13/2014			SeqNo: 498461		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	8.8		10.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.6	70	130			
Surr: Toluene-d8	9.0		10.00		89.7	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID 100ng LCS		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW		Batch ID: R17303		RunNo: 17303						
Prep Date:		Analysis Date: 3/13/2014		SeqNo: 498463		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.5	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		87.9	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	9.0		10.00		90.1	70	130			

Sample ID	5mL-rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID: R17375		RunNo: 17375						
Prep Date:		Analysis Date: 3/17/2014		SeqNo: 500366		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								
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								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R17375			RunNo: 17375					
Prep Date:		Analysis Date: 3/17/2014			SeqNo: 500366	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	9.3		10.00		93.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.0	70	130			
Surr: Toluene-d8	9.3		10.00		92.6	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 greater than 2.
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#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	100ng LCS	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R17375			RunNo: 17375					
Prep Date:		Analysis Date: 3/17/2014			SeqNo: 500403		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	25	1.0	20.00	0	126	90	143			
Trichloroethene (TCE)	19	1.0	20.00	0	95.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.2	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.5	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.4	70	130			
Surr: Toluene-d8	9.4		10.00		93.7	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12139		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 12139		RunNo: 17268					
Prep Date:	3/12/2014		Analysis Date: 3/12/2014		SeqNo: 497414		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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12139		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 12139		RunNo: 17268					
Prep Date:	3/12/2014		Analysis Date: 3/12/2014		SeqNo: 497414		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		70.8	22.7	98			
Surr: Phenol-d5	100		200.0		50.6	23.4	74.9			
Surr: 2,4,6-Tribromophenol	210		200.0		104	23.3	111			
Surr: Nitrobenzene-d5	95		100.0		95.2	36.8	111			
Surr: 2-Fluorobiphenyl	87		100.0		87.3	38.3	110			
Surr: 4-Terphenyl-d14	92		100.0		91.7	52.1	116			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LCS-12139		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 12139		RunNo: 17268					
Prep Date:	3/12/2014		Analysis Date: 3/12/2014		SeqNo: 497415		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	88	10	100.0	0	88.4	48	101			
4-Chloro-3-methylphenol	160	10	200.0	0	82.4	47.9	109			
2-Chlorophenol	170	10	200.0	0	85.9	40	105			
1,4-Dichlorobenzene	99	10	100.0	0	98.8	40.8	94.3			S
2,4-Dinitrotoluene	78	10	100.0	0	77.8	28.3	131			
N-Nitrosodi-n-propylamine	110	10	100.0	0	107	46.2	119			
4-Nitrophenol	93	10	200.0	0	46.6	10.5	67.9			
Pentachlorophenol	130	20	200.0	0	65.3	22.4	81.1			
Phenol	110	10	200.0	0	54.4	21.4	72.9			
Pyrene	78	10	100.0	0	77.8	46.9	109			
1,2,4-Trichlorobenzene	83	10	100.0	0	83.0	43.1	98.4			
Surr: 2-Fluorophenol	140		200.0		71.0	22.7	98			
Surr: Phenol-d5	100		200.0		52.4	23.4	74.9			
Surr: 2,4,6-Tribromophenol	210		200.0		105	23.3	111			
Surr: Nitrobenzene-d5	92		100.0		91.9	36.8	111			
Surr: 2-Fluorobiphenyl	88		100.0		87.7	38.3	110			
Surr: 4-Terphenyl-d14	98		100.0		98.4	52.1	116			

Sample ID	1403354-002gms		SampType: MS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	NAPIS-2		Batch ID: 12139		RunNo: 17268					
Prep Date:	3/12/2014		Analysis Date: 3/12/2014		SeqNo: 497433		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	10	100.0	2.960	78.5	52.5	94.5			
4-Chloro-3-methylphenol	170	10	200.0	0	87.0	45	103			
2-Chlorophenol	110	10	200.0	0	55.6	32.3	101			
1,4-Dichlorobenzene	68	10	100.0	0	67.5	34.5	97.5			
2,4-Dinitrotoluene	85	10	100.0	0	84.6	20.1	123			
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.9	26.9	131			
4-Nitrophenol	68	10	200.0	0	34.2	11.6	55.4			
Pentachlorophenol	130	20	200.0	5.380	62.2	17.6	88.9			
Phenol	62	10	200.0	0	31.0	18.4	66.5			
Pyrene	72	10	100.0	0	71.9	43.1	111			
1,2,4-Trichlorobenzene	62	10	100.0	0	61.9	38.8	95.6			
Surr: 2-Fluorophenol	75		200.0		37.6	22.7	98			
Surr: Phenol-d5	57		200.0		28.5	23.4	74.9			
Surr: 2,4,6-Tribromophenol	170		200.0		86.5	23.3	111			
Surr: Nitrobenzene-d5	65		100.0		65.0	36.8	111			
Surr: 2-Fluorobiphenyl	73		100.0		73.3	38.3	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403354

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	1403354-002gms	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	NAPIS-2	Batch ID:	12139	RunNo:	17268					
Prep Date:	3/12/2014	Analysis Date:	3/12/2014	SeqNo:	497433	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	70		100.0		70.5	52.1	116			

Sample ID	1403354-002gmsd	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	NAPIS-2	Batch ID:	12139	RunNo:	17268					
Prep Date:	3/12/2014	Analysis Date:	3/12/2014	SeqNo:	497434	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	2.960	76.7	52.5	94.5	2.21	20	
4-Chloro-3-methylphenol	200	10	200.0	0	98.5	45	103	12.4	20	
2-Chlorophenol	120	10	200.0	0	59.0	32.3	101	5.92	20	
1,4-Dichlorobenzene	71	10	100.0	0	70.6	34.5	97.5	4.46	20	
2,4-Dinitrotoluene	82	10	100.0	0	81.6	20.1	123	3.66	20	
N-Nitrosodi-n-propylamine	83	10	100.0	0	82.8	26.9	131	3.52	20	
4-Nitrophenol	74	10	200.0	0	36.8	11.6	55.4	7.19	20	
Pentachlorophenol	140	20	200.0	5.380	67.5	17.6	88.9	7.94	20	
Phenol	70	10	200.0	0	35.2	18.4	66.5	12.5	20	
Pyrene	75	10	100.0	0	75.0	43.1	111	4.22	20	
1,2,4-Trichlorobenzene	71	10	100.0	0	71.1	38.8	95.6	13.9	20	
Surr: 2-Fluorophenol	85		200.0		42.7	22.7	98	0	0	
Surr: Phenol-d5	64		200.0		32.1	23.4	74.9	0	0	
Surr: 2,4,6-Tribromophenol	170		200.0		87.0	23.3	111	0	0	
Surr: Nitrobenzene-d5	69		100.0		69.0	36.8	111	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		65.1	38.3	110	0	0	
Surr: 4-Terphenyl-d14	72		100.0		71.9	52.1	116	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 greater than 2.
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
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: 1403354

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/10/2014 4:10:00 PM

Completed By: Lindsay Mangin

3/10/2014 4:44:06 PM

Reviewed By:

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: 12, 1
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	4.6	Good	Not Present			

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:

☐ Standard ☐ Level 4: (Full Validation)

Accreditation:

☐ NELAP ☐ Other☐ EDD (Type)

Turn-Around Time:

☐ Standard ☐ Rush

Project Name	Q1-2014 Groundwater

	Sampling
Project #:	Quarterly Sampling

Project Manager:
Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.1

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8015B (DRC)	WQCC Metals	3270: Pb	Total Cyanide	Air Bubbles
3/10/14	1225		NAPIS-1			1403354 -001	x	x	x	x	x
3/10/14	1020		NAPIS-2 (IAPIS) (TGC)			-002	x	x	x	x	x
3/10/14	1145		NAPIS-3			-003	x	x	x	x	x
3/10/14	1110		KA-3			-004	x	x	x	x	x
3/10/14	1315		OAPIS-1			-005	x	x	x	x	x
3/10/14	0925	W	FB-Group#3-			-006	x				
3/10/14	1020		GC								
			Trip Blank		03/11/14	-008	x				

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
4/9/14	1610	Don Reemus		03/10/14	1610
Date:	Time:	Relinquished by:	Received by:	Date:	Time:

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

October 06, 2014

Cheryl Johnson

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

RE: 2014 Annual GW

OrderNo.: 1409803

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/16/2014 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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 9:50:00 AM

Lab ID: 1409803-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/18/2014 1:07:16 PM	15312
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/18/2014 1:07:16 PM	15312
Surr: DNOP	100	59-141		%REC	1	9/18/2014 1:07:16 PM	15312
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/17/2014 7:00:35 PM	R21267
Surr: BFB	92.9	70.9-130		%REC	1	9/17/2014 7:00:35 PM	R21267
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.45	0.10		mg/L	1	9/17/2014 1:01:28 PM	R21277
Chloride	760	50		mg/L	100	9/19/2014 5:46:40 AM	R21321
Bromide	4.4	0.10		mg/L	1	9/17/2014 1:01:28 PM	R21277
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/17/2014 1:01:28 PM	R21277
Sulfate	420	10		mg/L	20	9/17/2014 1:38:41 PM	R21277
Nitrate+Nitrite as N	19	1.0	*	mg/L	5	9/18/2014 4:02:43 AM	R21283
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.041	0.0020		mg/L	1	9/18/2014 1:42:44 PM	R21290
Cadmium	ND	0.0020		mg/L	1	9/18/2014 1:42:44 PM	R21290
Calcium	43	1.0		mg/L	1	9/18/2014 1:42:44 PM	R21290
Chromium	ND	0.0060		mg/L	1	9/18/2014 1:42:44 PM	R21290
Copper	ND	0.0060		mg/L	1	9/18/2014 1:42:44 PM	R21290
Iron	ND	0.020		mg/L	1	9/18/2014 1:42:44 PM	R21290
Magnesium	6.9	1.0		mg/L	1	9/18/2014 1:42:44 PM	R21290
Manganese	ND	0.0020		mg/L	1	9/19/2014 4:27:49 PM	R21336
Potassium	5.2	1.0		mg/L	1	9/18/2014 1:42:44 PM	R21290
Silver	ND	0.0050		mg/L	1	9/24/2014 12:31:02 PM	R21433
Sodium	910	20		mg/L	20	9/19/2014 4:29:40 PM	R21336
Zinc	ND	0.010		mg/L	1	9/19/2014 4:27:49 PM	R21336
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.070	0.0020		mg/L	1	9/18/2014 4:31:52 PM	15343
Cadmium	ND	0.0020		mg/L	1	9/18/2014 4:31:52 PM	15343
Chromium	ND	0.0060		mg/L	1	9/18/2014 4:31:52 PM	15343
Copper	0.0084	0.0060		mg/L	1	9/18/2014 4:31:52 PM	15343
Iron	1.0	0.10	*	mg/L	5	9/18/2014 5:14:36 PM	15343
Manganese	0.035	0.0020		mg/L	1	9/18/2014 4:31:52 PM	15343
Silver	ND	0.0050		mg/L	1	9/18/2014 4:31:52 PM	15343
Zinc	0.018	0.010		mg/L	1	9/18/2014 4:31:52 PM	15343
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	9/26/2014 2:11:05 PM	R21493

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 9:50:00 AM

Lab ID: 1409803-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	9/29/2014 4:34:31 PM	R21527
Selenium	0.035	0.010		mg/L	10	9/26/2014 2:11:05 PM	R21493
Uranium	0.039	0.010	*	mg/L	10	9/29/2014 4:34:31 PM	R21527
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	9/29/2014 12:55:50 PM	15343
Lead	0.0015	0.0010		mg/L	1	9/23/2014 5:48:17 PM	15343
Selenium	0.034	0.010		mg/L	10	9/29/2014 12:55:50 PM	15343
Uranium	0.047	0.0010	*	mg/L	1	9/23/2014 5:48:17 PM	15343
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	9/24/2014 10:42:48 AM	15449
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Acenaphthylene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Aniline	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Anthracene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Azobenzene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Benz(a)anthracene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Benzo(a)pyrene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Benzo(b)fluoranthene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Benzo(k)fluoranthene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Benzoic acid	ND	20		µg/L	1	9/18/2014 6:56:16 PM	15342
Benzyl alcohol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Butyl benzyl phthalate	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Carbazole	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
4-Chloroaniline	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2-Chloronaphthalene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2-Chlorophenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Chrysene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Di-n-butyl phthalate	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Di-n-octyl phthalate	ND	20		µg/L	1	9/18/2014 6:56:16 PM	15342

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 9:50:00 AM

Lab ID: 1409803-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Dibenzofuran	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
1,2-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
1,3-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
1,4-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Diethyl phthalate	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Dimethyl phthalate	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2,4-Dichlorophenol	ND	20		µg/L	1	9/18/2014 6:56:16 PM	15342
2,4-Dimethylphenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/18/2014 6:56:16 PM	15342
2,4-Dinitrophenol	ND	20		µg/L	1	9/18/2014 6:56:16 PM	15342
2,4-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2,6-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Fluoranthene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Fluorene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Hexachlorobenzene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Hexachlorobutadiene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Hexachloroethane	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Isophorone	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
1-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2-Methylphenol	ND	20		µg/L	1	9/18/2014 6:56:16 PM	15342
3+4-Methylphenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
N-Nitrosodimethylamine	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Naphthalene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2-Nitroaniline	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
3-Nitroaniline	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
4-Nitroaniline	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Nitrobenzene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2-Nitrophenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
4-Nitrophenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Pentachlorophenol	ND	20		µg/L	1	9/18/2014 6:56:16 PM	15342
Phenanthrene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Phenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342

Refer to the QC Summary report and 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 53
	E	Value 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 greater than 2.	
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 9:50:00 AM

Lab ID: 1409803-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Pyridine	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/18/2014 6:56:16 PM	15342
Surr: 2-Fluorophenol	59.7	12.1-85.8		%REC	1	9/18/2014 6:56:16 PM	15342
Surr: Phenol-d5	52.4	17.7-65.8		%REC	1	9/18/2014 6:56:16 PM	15342
Surr: 2,4,6-Tribromophenol	64.7	26-138		%REC	1	9/18/2014 6:56:16 PM	15342
Surr: Nitrobenzene-d5	72.6	47.5-119		%REC	1	9/18/2014 6:56:16 PM	15342
Surr: 2-Fluorobiphenyl	69.5	48.1-106		%REC	1	9/18/2014 6:56:16 PM	15342
Surr: 4-Terphenyl-d14	78.4	44-113		%REC	1	9/18/2014 6:56:16 PM	15342
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Toluene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Ethylbenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Naphthalene	ND	2.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
2-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Acetone	ND	10		µg/L	1	9/19/2014 3:11:47 AM	R21295
Bromobenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Bromodichloromethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Bromoform	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Bromomethane	ND	3.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
2-Butanone	ND	10		µg/L	1	9/19/2014 3:11:47 AM	R21295
Carbon disulfide	ND	10		µg/L	1	9/19/2014 3:11:47 AM	R21295
Carbon Tetrachloride	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Chlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Chloroethane	ND	2.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Chloroform	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Chloromethane	ND	3.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
2-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
4-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
cis-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 9:50:00 AM

Lab ID: 1409803-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Dibromochloromethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Dibromomethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,1-Dichloroethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,1-Dichloroethene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,3-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
2,2-Dichloropropane	ND	2.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,1-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Hexachlorobutadiene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
2-Hexanone	ND	10		µg/L	1	9/19/2014 3:11:47 AM	R21295
Isopropylbenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
4-Isopropyltoluene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
4-Methyl-2-pentanone	ND	10		µg/L	1	9/19/2014 3:11:47 AM	R21295
Methylene Chloride	ND	3.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
n-Butylbenzene	ND	3.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
n-Propylbenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
sec-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Styrene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
tert-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
trans-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Trichlorofluoromethane	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Vinyl chloride	ND	1.0		µg/L	1	9/19/2014 3:11:47 AM	R21295
Xylenes, Total	ND	1.5		µg/L	1	9/19/2014 3:11:47 AM	R21295
Surr: 1,2-Dichloroethane-d4	91.7	70-130		%REC	1	9/19/2014 3:11:47 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 9:50:00 AM

Lab ID: 1409803-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	9/19/2014 3:11:47 AM	R21295
Surr: Dibromofluoromethane	93.2	70-130		%REC	1	9/19/2014 3:11:47 AM	R21295
Surr: Toluene-d8	91.9	70-130		%REC	1	9/19/2014 3:11:47 AM	R21295

Refer to the QC Summary report and 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 53
	E	Value 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 greater than 2.	
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 Annual GW

Collection Date: 9/11/2014 10:15:00 AM

Lab ID: 1409803-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/18/2014 1:29:12 PM	15312
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/18/2014 1:29:12 PM	15312
Surr: DNOP	99.4	59-141		%REC	1	9/18/2014 1:29:12 PM	15312
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/17/2014 7:30:56 PM	R21267
Surr: BFB	92.7	70.9-130		%REC	1	9/17/2014 7:30:56 PM	R21267
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.46	0.10		mg/L	1	9/17/2014 2:15:55 PM	R21277
Chloride	91	10		mg/L	20	9/17/2014 2:28:20 PM	R21277
Bromide	1.1	0.10		mg/L	1	9/17/2014 2:15:55 PM	R21277
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/17/2014 2:15:55 PM	R21277
Sulfate	110	10		mg/L	20	9/17/2014 2:28:20 PM	R21277
Nitrate+Nitrite as N	7.1	1.0		mg/L	5	9/18/2014 4:52:21 AM	R21283
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	9/18/2014 1:44:48 PM	R21290
Cadmium	ND	0.0020		mg/L	1	9/18/2014 1:44:48 PM	R21290
Calcium	94	1.0		mg/L	1	9/18/2014 1:44:48 PM	R21290
Chromium	ND	0.0060		mg/L	1	9/18/2014 1:44:48 PM	R21290
Copper	ND	0.0060		mg/L	1	9/18/2014 1:44:48 PM	R21290
Iron	ND	0.020		mg/L	1	9/18/2014 1:44:48 PM	R21290
Magnesium	16	1.0		mg/L	1	9/18/2014 1:44:48 PM	R21290
Manganese	0.13	0.0020	*	mg/L	1	9/19/2014 4:49:26 PM	R21336
Potassium	1.3	1.0		mg/L	1	9/18/2014 1:44:48 PM	R21290
Silver	ND	0.0050		mg/L	1	9/24/2014 12:33:06 PM	R21433
Sodium	330	10		mg/L	10	9/19/2014 4:51:16 PM	R21336
Zinc	0.010	0.010		mg/L	1	9/19/2014 4:49:26 PM	R21336
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	9/18/2014 4:38:57 PM	15343
Cadmium	ND	0.0020		mg/L	1	9/18/2014 4:38:57 PM	15343
Chromium	ND	0.0060		mg/L	1	9/18/2014 4:38:57 PM	15343
Copper	ND	0.0060		mg/L	1	9/18/2014 4:38:57 PM	15343
Iron	0.24	0.020		mg/L	1	9/18/2014 4:38:57 PM	15343
Manganese	0.12	0.0020	*	mg/L	1	9/18/2014 4:38:57 PM	15343
Silver	ND	0.0050		mg/L	1	9/18/2014 4:38:57 PM	15343
Zinc	ND	0.010		mg/L	1	9/18/2014 4:38:57 PM	15343
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/26/2014 2:14:11 PM	R21493

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 Annual GW

Collection Date: 9/11/2014 10:15:00 AM

Lab ID: 1409803-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	9/29/2014 4:37:37 PM	R21527
Selenium	0.012	0.0050		mg/L	5	9/26/2014 2:14:11 PM	R21493
Uranium	ND	0.010		mg/L	10	9/29/2014 4:37:37 PM	R21527
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/29/2014 12:58:56 PM	15343
Lead	ND	0.0010		mg/L	1	9/23/2014 5:51:23 PM	15343
Selenium	0.012	0.010		mg/L	10	9/29/2014 12:58:56 PM	15343
Uranium	0.012	0.0010		mg/L	1	9/23/2014 5:51:23 PM	15343
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	9/24/2014 10:44:39 AM	15449
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Acenaphthylene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Aniline	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Anthracene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Azobenzene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Benz(a)anthracene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Benzo(a)pyrene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Benzo(b)fluoranthene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Benzo(k)fluoranthene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Benzoic acid	ND	20		µg/L	1	9/18/2014 7:25:18 PM	15342
Benzyl alcohol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Butyl benzyl phthalate	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Carbazole	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
4-Chloroaniline	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2-Chloronaphthalene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2-Chlorophenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Chrysene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Di-n-butyl phthalate	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Di-n-octyl phthalate	ND	20		µg/L	1	9/18/2014 7:25:18 PM	15342

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 Annual GW

Collection Date: 9/11/2014 10:15:00 AM

Lab ID: 1409803-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Dibenzofuran	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
1,2-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
1,3-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
1,4-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Diethyl phthalate	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Dimethyl phthalate	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2,4-Dichlorophenol	ND	20		µg/L	1	9/18/2014 7:25:18 PM	15342
2,4-Dimethylphenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/18/2014 7:25:18 PM	15342
2,4-Dinitrophenol	ND	20		µg/L	1	9/18/2014 7:25:18 PM	15342
2,4-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2,6-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Fluoranthene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Fluorene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Hexachlorobenzene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Hexachlorobutadiene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Hexachloroethane	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Isophorone	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
1-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2-Methylphenol	ND	20		µg/L	1	9/18/2014 7:25:18 PM	15342
3+4-Methylphenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
N-Nitrosodimethylamine	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Naphthalene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2-Nitroaniline	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
3-Nitroaniline	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
4-Nitroaniline	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Nitrobenzene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2-Nitrophenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
4-Nitrophenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Pentachlorophenol	ND	20		µg/L	1	9/18/2014 7:25:18 PM	15342
Phenanthrene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Phenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342

Refer to the QC Summary report and 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 53
	E	Value 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 greater than 2.	
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 Annual GW

Collection Date: 9/11/2014 10:15:00 AM

Lab ID: 1409803-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Pyridine	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/18/2014 7:25:18 PM	15342
Surr: 2-Fluorophenol	60.9	12.1-85.8		%REC	1	9/18/2014 7:25:18 PM	15342
Surr: Phenol-d5	51.0	17.7-65.8		%REC	1	9/18/2014 7:25:18 PM	15342
Surr: 2,4,6-Tribromophenol	60.7	26-138		%REC	1	9/18/2014 7:25:18 PM	15342
Surr: Nitrobenzene-d5	75.6	47.5-119		%REC	1	9/18/2014 7:25:18 PM	15342
Surr: 2-Fluorobiphenyl	70.1	48.1-106		%REC	1	9/18/2014 7:25:18 PM	15342
Surr: 4-Terphenyl-d14	73.8	44-113		%REC	1	9/18/2014 7:25:18 PM	15342
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	1.4	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Toluene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Ethylbenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Naphthalene	ND	2.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
2-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Acetone	ND	10		µg/L	1	9/19/2014 3:41:23 AM	R21295
Bromobenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Bromodichloromethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Bromoform	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Bromomethane	ND	3.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
2-Butanone	ND	10		µg/L	1	9/19/2014 3:41:23 AM	R21295
Carbon disulfide	ND	10		µg/L	1	9/19/2014 3:41:23 AM	R21295
Carbon Tetrachloride	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Chlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Chloroethane	ND	2.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Chloroform	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Chloromethane	ND	3.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
2-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
4-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
cis-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 Annual GW

Collection Date: 9/11/2014 10:15:00 AM

Lab ID: 1409803-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Dibromochloromethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Dibromomethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,1-Dichloroethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,1-Dichloroethene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,3-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
2,2-Dichloropropane	ND	2.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,1-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Hexachlorobutadiene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
2-Hexanone	ND	10		µg/L	1	9/19/2014 3:41:23 AM	R21295
Isopropylbenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
4-Isopropyltoluene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
4-Methyl-2-pentanone	ND	10		µg/L	1	9/19/2014 3:41:23 AM	R21295
Methylene Chloride	ND	3.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
n-Butylbenzene	ND	3.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
n-Propylbenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
sec-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Styrene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
tert-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
trans-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Trichlorofluoromethane	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Vinyl chloride	ND	1.0		µg/L	1	9/19/2014 3:41:23 AM	R21295
Xylenes, Total	ND	1.5		µg/L	1	9/19/2014 3:41:23 AM	R21295
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%REC	1	9/19/2014 3:41:23 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 Annual GW

Collection Date: 9/11/2014 10:15:00 AM

Lab ID: 1409803-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	9/19/2014 3:41:23 AM	R21295
Surr: Dibromofluoromethane	97.1	70-130		%REC	1	9/19/2014 3:41:23 AM	R21295
Surr: Toluene-d8	88.5	70-130		%REC	1	9/19/2014 3:41:23 AM	R21295

Refer to the QC Summary report and 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 12 of 53
	E	Value 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 greater than 2.	
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:20:00 AM

Lab ID: 1409803-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/18/2014 1:51:12 PM	15312
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/18/2014 1:51:12 PM	15312
Surr: DNOP	97.6	59-141		%REC	1	9/18/2014 1:51:12 PM	15312
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/17/2014 8:01:08 PM	R21267
Surr: BFB	98.4	70.9-130		%REC	1	9/17/2014 8:01:08 PM	R21267
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.1	0.10		mg/L	1	9/17/2014 2:40:45 PM	R21277
Chloride	160	10		mg/L	20	9/17/2014 2:53:10 PM	R21277
Bromide	1.2	0.10		mg/L	1	9/17/2014 2:40:45 PM	R21277
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/17/2014 2:40:45 PM	R21277
Sulfate	61	10		mg/L	20	9/17/2014 2:53:10 PM	R21277
Nitrate+Nitrite as N	1.1	1.0		mg/L	5	9/18/2014 5:04:45 AM	R21283
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.22	0.0020		mg/L	1	9/18/2014 1:46:47 PM	R21290
Cadmium	ND	0.0020		mg/L	1	9/18/2014 1:46:47 PM	R21290
Calcium	63	1.0		mg/L	1	9/18/2014 1:46:47 PM	R21290
Chromium	ND	0.0060		mg/L	1	9/18/2014 1:46:47 PM	R21290
Copper	ND	0.0060		mg/L	1	9/18/2014 1:46:47 PM	R21290
Iron	ND	0.020		mg/L	1	9/18/2014 1:46:47 PM	R21290
Magnesium	10	1.0		mg/L	1	9/18/2014 1:46:47 PM	R21290
Manganese	0.47	0.0020	*	mg/L	1	9/19/2014 4:53:06 PM	R21336
Potassium	1.6	1.0		mg/L	1	9/18/2014 1:46:47 PM	R21290
Silver	ND	0.0050		mg/L	1	9/24/2014 12:35:03 PM	R21433
Sodium	300	10		mg/L	10	9/19/2014 4:54:56 PM	R21336
Zinc	0.011	0.010		mg/L	1	9/19/2014 4:53:06 PM	R21336
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.22	0.0020		mg/L	1	9/18/2014 4:40:50 PM	15343
Cadmium	ND	0.0020		mg/L	1	9/18/2014 4:40:50 PM	15343
Chromium	ND	0.0060		mg/L	1	9/18/2014 4:40:50 PM	15343
Copper	ND	0.0060		mg/L	1	9/18/2014 4:40:50 PM	15343
Iron	0.14	0.020		mg/L	1	9/18/2014 4:40:50 PM	15343
Manganese	0.55	0.0020	*	mg/L	1	9/18/2014 4:40:50 PM	15343
Silver	ND	0.0050		mg/L	1	9/18/2014 4:40:50 PM	15343
Zinc	ND	0.010		mg/L	1	9/18/2014 4:40:50 PM	15343
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/26/2014 2:17:17 PM	R21493

Refer to the QC Summary report and 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 greater than 2.
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:20:00 AM

Lab ID: 1409803-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	9/29/2014 4:40:43 PM	R21527
Selenium	0.0089	0.0050		mg/L	5	9/26/2014 2:17:17 PM	R21493
Uranium	0.014	0.010		mg/L	10	9/29/2014 4:40:43 PM	R21527
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/29/2014 1:02:02 PM	15343
Lead	ND	0.0010		mg/L	1	9/23/2014 5:54:28 PM	15343
Selenium	ND	0.010		mg/L	10	9/29/2014 1:02:02 PM	15343
Uranium	0.019	0.0010		mg/L	1	9/23/2014 5:54:28 PM	15343
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	9/24/2014 10:46:22 AM	15449
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Acenaphthylene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Aniline	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Anthracene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Azobenzene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Benz(a)anthracene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Benzo(a)pyrene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Benzo(b)fluoranthene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Benzo(k)fluoranthene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Benzoic acid	ND	20		µg/L	1	9/18/2014 7:54:14 PM	15342
Benzyl alcohol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Butyl benzyl phthalate	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Carbazole	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
4-Chloroaniline	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2-Chloronaphthalene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2-Chlorophenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Chrysene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Di-n-butyl phthalate	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Di-n-octyl phthalate	ND	20		µg/L	1	9/18/2014 7:54:14 PM	15342

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:20:00 AM

Lab ID: 1409803-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Dibenzofuran	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
1,2-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
1,3-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
1,4-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Diethyl phthalate	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Dimethyl phthalate	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2,4-Dichlorophenol	ND	20		µg/L	1	9/18/2014 7:54:14 PM	15342
2,4-Dimethylphenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/18/2014 7:54:14 PM	15342
2,4-Dinitrophenol	ND	20		µg/L	1	9/18/2014 7:54:14 PM	15342
2,4-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2,6-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Fluoranthene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Fluorene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Hexachlorobenzene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Hexachlorobutadiene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Hexachloroethane	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Isophorone	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
1-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2-Methylphenol	ND	20		µg/L	1	9/18/2014 7:54:14 PM	15342
3+4-Methylphenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
N-Nitrosodimethylamine	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Naphthalene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2-Nitroaniline	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
3-Nitroaniline	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
4-Nitroaniline	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Nitrobenzene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2-Nitrophenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
4-Nitrophenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Pentachlorophenol	ND	20		µg/L	1	9/18/2014 7:54:14 PM	15342
Phenanthrene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Phenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342

Refer to the QC Summary report and 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 greater than 2.
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:20:00 AM

Lab ID: 1409803-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Pyrene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Pyridine	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/18/2014 7:54:14 PM	15342
Surr: 2-Fluorophenol	55.7	12.1-85.8		%REC	1	9/18/2014 7:54:14 PM	15342
Surr: Phenol-d5	50.5	17.7-65.8		%REC	1	9/18/2014 7:54:14 PM	15342
Surr: 2,4,6-Tribromophenol	61.2	26-138		%REC	1	9/18/2014 7:54:14 PM	15342
Surr: Nitrobenzene-d5	72.7	47.5-119		%REC	1	9/18/2014 7:54:14 PM	15342
Surr: 2-Fluorobiphenyl	70.1	48.1-106		%REC	1	9/18/2014 7:54:14 PM	15342
Surr: 4-Terphenyl-d14	78.8	44-113		%REC	1	9/18/2014 7:54:14 PM	15342
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
Benzene	3.8	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Toluene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Ethylbenzene	1.9	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Methyl tert-butyl ether (MTBE)	11	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Naphthalene	ND	2.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
2-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Acetone	ND	10		µg/L	1	9/19/2014 4:11:03 AM	R21295
Bromobenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Bromodichloromethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Bromoform	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Bromomethane	ND	3.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
2-Butanone	ND	10		µg/L	1	9/19/2014 4:11:03 AM	R21295
Carbon disulfide	ND	10		µg/L	1	9/19/2014 4:11:03 AM	R21295
Carbon Tetrachloride	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Chlorobenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Chloroethane	ND	2.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Chloroform	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Chloromethane	ND	3.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
2-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
4-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
cis-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:20:00 AM

Lab ID: 1409803-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Dibromochloromethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Dibromomethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,1-Dichloroethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,1-Dichloroethene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,3-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
2,2-Dichloropropane	ND	2.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,1-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Hexachlorobutadiene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
2-Hexanone	ND	10		µg/L	1	9/19/2014 4:11:03 AM	R21295
Isopropylbenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
4-Isopropyltoluene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
4-Methyl-2-pentanone	ND	10		µg/L	1	9/19/2014 4:11:03 AM	R21295
Methylene Chloride	ND	3.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
n-Butylbenzene	ND	3.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
n-Propylbenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
sec-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Styrene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
tert-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
trans-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Trichlorofluoromethane	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Vinyl chloride	ND	1.0		µg/L	1	9/19/2014 4:11:03 AM	R21295
Xylenes, Total	ND	1.5		µg/L	1	9/19/2014 4:11:03 AM	R21295
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%REC	1	9/19/2014 4:11:03 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:20:00 AM

Lab ID: 1409803-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	1	9/19/2014 4:11:03 AM	R21295
Surr: Dibromofluoromethane	93.1	70-130		%REC	1	9/19/2014 4:11:03 AM	R21295
Surr: Toluene-d8	86.7	70-130		%REC	1	9/19/2014 4:11:03 AM	R21295

Refer to the QC Summary report and 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 18 of 53
	E	Value 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 greater than 2.	
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:35:00 AM

Lab ID: 1409803-004

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	9/18/2014 2:13:02 PM	15312
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/18/2014 2:13:02 PM	15312
Surr: DNOP	96.4	59-141		%REC	1	9/18/2014 2:13:02 PM	15312
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.41	0.050		mg/L	1	9/17/2014 8:31:17 PM	R21267
Surr: BFB	146	70.9-130	S	%REC	1	9/17/2014 8:31:17 PM	R21267
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.6	0.10		mg/L	1	9/17/2014 3:05:34 PM	R21277
Chloride	360	10	*	mg/L	20	9/17/2014 3:17:58 PM	R21277
Bromide	1.1	0.10		mg/L	1	9/17/2014 3:05:34 PM	R21277
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/17/2014 3:05:34 PM	R21277
Sulfate	11	0.50		mg/L	1	9/17/2014 3:05:34 PM	R21277
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/18/2014 5:17:09 AM	R21283
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.9	0.020		mg/L	10	9/19/2014 5:09:13 PM	R21336
Cadmium	ND	0.0020		mg/L	1	9/18/2014 1:48:45 PM	R21290
Calcium	98	1.0		mg/L	1	9/18/2014 1:48:45 PM	R21290
Chromium	ND	0.0060		mg/L	1	9/18/2014 1:48:45 PM	R21290
Copper	ND	0.0060		mg/L	1	9/18/2014 1:48:45 PM	R21290
Iron	1.6	0.20	*	mg/L	10	9/19/2014 5:09:13 PM	R21336
Magnesium	18	1.0		mg/L	1	9/18/2014 1:48:45 PM	R21290
Manganese	1.2	0.020	*	mg/L	10	9/19/2014 5:09:13 PM	R21336
Potassium	1.1	1.0		mg/L	1	9/18/2014 1:48:45 PM	R21290
Silver	ND	0.0050		mg/L	1	9/24/2014 12:37:01 PM	R21433
Sodium	410	10		mg/L	10	9/19/2014 5:09:13 PM	R21336
Zinc	0.047	0.010		mg/L	1	9/19/2014 4:56:48 PM	R21336
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.1	0.010	*	mg/L	5	9/18/2014 5:16:33 PM	15343
Cadmium	ND	0.0020		mg/L	1	9/18/2014 4:42:43 PM	15343
Chromium	ND	0.0060		mg/L	1	9/18/2014 4:42:43 PM	15343
Copper	0.012	0.0060		mg/L	1	9/18/2014 4:42:43 PM	15343
Iron	3.5	0.10	*	mg/L	5	9/18/2014 5:16:33 PM	15343
Manganese	1.3	0.010	*	mg/L	5	9/18/2014 5:16:33 PM	15343
Silver	ND	0.0050		mg/L	1	9/18/2014 4:42:43 PM	15343
Zinc	0.017	0.010		mg/L	1	9/18/2014 4:42:43 PM	15343
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0070	0.0050		mg/L	5	9/26/2014 2:20:23 PM	R21493

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:35:00 AM

Lab ID: 1409803-004

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	9/29/2014 4:43:50 PM	R21527
Selenium	0.011	0.0050		mg/L	5	9/26/2014 2:20:23 PM	R21493
Uranium	ND	0.010		mg/L	10	9/29/2014 4:43:50 PM	R21527
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.010	0.010	*	mg/L	10	9/29/2014 1:05:08 PM	15343
Lead	0.0030	0.0010		mg/L	1	9/23/2014 5:57:34 PM	15343
Selenium	0.011	0.010		mg/L	10	9/29/2014 1:05:08 PM	15343
Uranium	ND	0.0010		mg/L	1	9/23/2014 5:57:34 PM	15343
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	9/24/2014 10:48:07 AM	15449
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Acenaphthylene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Aniline	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Anthracene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Azobenzene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Benz(a)anthracene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Benzo(a)pyrene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Benzo(b)fluoranthene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Benzo(k)fluoranthene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Benzoic acid	ND	20		µg/L	1	9/18/2014 8:23:17 PM	15342
Benzyl alcohol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Butyl benzyl phthalate	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Carbazole	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
4-Chloroaniline	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2-Chloronaphthalene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2-Chlorophenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Chrysene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Di-n-butyl phthalate	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Di-n-octyl phthalate	ND	20		µg/L	1	9/18/2014 8:23:17 PM	15342

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:35:00 AM

Lab ID: 1409803-004

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Dibenzofuran	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
1,2-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
1,3-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
1,4-Dichlorobenzene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Diethyl phthalate	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Dimethyl phthalate	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2,4-Dichlorophenol	ND	20		µg/L	1	9/18/2014 8:23:17 PM	15342
2,4-Dimethylphenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/18/2014 8:23:17 PM	15342
2,4-Dinitrophenol	ND	20		µg/L	1	9/18/2014 8:23:17 PM	15342
2,4-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2,6-Dinitrotoluene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Fluoranthene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Fluorene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Hexachlorobenzene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Hexachlorobutadiene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Hexachloroethane	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Isophorone	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
1-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2-Methylnaphthalene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2-Methylphenol	ND	20		µg/L	1	9/18/2014 8:23:17 PM	15342
3+4-Methylphenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
N-Nitrosodimethylamine	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Naphthalene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2-Nitroaniline	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
3-Nitroaniline	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
4-Nitroaniline	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Nitrobenzene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2-Nitrophenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
4-Nitrophenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Pentachlorophenol	ND	20		µg/L	1	9/18/2014 8:23:17 PM	15342
Phenanthrene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Phenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**Date Reported: **10/6/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** NAPIS-2**Project:** 2014 Annual GW**Collection Date:** 9/11/2014 11:35:00 AM**Lab ID:** 1409803-004**Matrix:** AQUEOUS**Received Date:** 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Pyrene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Pyridine	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/18/2014 8:23:17 PM	15342
Surr: 2-Fluorophenol	57.1	12.1-85.8		%REC	1	9/18/2014 8:23:17 PM	15342
Surr: Phenol-d5	51.3	17.7-65.8		%REC	1	9/18/2014 8:23:17 PM	15342
Surr: 2,4,6-Tribromophenol	67.1	26-138		%REC	1	9/18/2014 8:23:17 PM	15342
Surr: Nitrobenzene-d5	71.2	47.5-119		%REC	1	9/18/2014 8:23:17 PM	15342
Surr: 2-Fluorobiphenyl	73.8	48.1-106		%REC	1	9/18/2014 8:23:17 PM	15342
Surr: 4-Terphenyl-d14	78.2	44-113		%REC	1	9/18/2014 8:23:17 PM	15342
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
Benzene	27	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Toluene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Ethylbenzene	7.0	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Methyl tert-butyl ether (MTBE)	290	10		µg/L	10	9/19/2014 4:40:43 AM	R21295
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Naphthalene	4.0	2.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
2-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Acetone	22	10		µg/L	1	9/19/2014 5:10:22 AM	R21295
Bromobenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Bromodichloromethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Bromoform	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Bromomethane	ND	3.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
2-Butanone	ND	10		µg/L	1	9/19/2014 5:10:22 AM	R21295
Carbon disulfide	ND	10		µg/L	1	9/19/2014 5:10:22 AM	R21295
Carbon Tetrachloride	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Chlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Chloroethane	ND	2.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Chloroform	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Chloromethane	ND	3.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
2-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
4-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
cis-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:35:00 AM

Lab ID: 1409803-004

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Dibromochloromethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Dibromomethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,1-Dichloroethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,1-Dichloroethene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,2-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,3-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
2,2-Dichloropropane	ND	2.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,1-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Hexachlorobutadiene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
2-Hexanone	ND	10		µg/L	1	9/19/2014 5:10:22 AM	R21295
Isopropylbenzene	1.1	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
4-Isopropyltoluene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
4-Methyl-2-pentanone	ND	10		µg/L	1	9/19/2014 5:10:22 AM	R21295
Methylene Chloride	ND	3.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
n-Butylbenzene	ND	3.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
n-Propylbenzene	1.7	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
sec-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Styrene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
tert-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
trans-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Trichlorofluoromethane	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Vinyl chloride	ND	1.0		µg/L	1	9/19/2014 5:10:22 AM	R21295
Xylenes, Total	ND	1.5		µg/L	1	9/19/2014 5:10:22 AM	R21295
Surr: 1,2-Dichloroethane-d4	97.2	70-130		%REC	1	9/19/2014 5:10:22 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 Annual GW

Collection Date: 9/11/2014 11:35:00 AM

Lab ID: 1409803-004

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	9/19/2014 5:10:22 AM	R21295
Surr: Dibromofluoromethane	96.2	70-130		%REC	1	9/19/2014 5:10:22 AM	R21295
Surr: Toluene-d8	86.7	70-130		%REC	1	9/19/2014 5:10:22 AM	R21295

Refer to the QC Summary report and 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 53
	E	Value 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 greater than 2.	
	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 1409803

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 Annual GW

Collection Date:

Lab ID: 1409803-005

Matrix: TRIP BLANK

Received Date: 9/16/2014 5:03:00 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	9/17/2014 11:04:55 PM	R21267
Surr: BFB	92.8	70.9-130		%REC	1	9/17/2014 11:04:55 PM	R21267
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Toluene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Ethylbenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Naphthalene	ND	2.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
2-Methylnaphthalene	ND	4.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Acetone	ND	10		µg/L	1	9/19/2014 5:40:01 AM	R21295
Bromobenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Bromodichloromethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Bromoform	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Bromomethane	ND	3.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
2-Butanone	ND	10		µg/L	1	9/19/2014 5:40:01 AM	R21295
Carbon disulfide	ND	10		µg/L	1	9/19/2014 5:40:01 AM	R21295
Carbon Tetrachloride	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Chlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Chloroethane	ND	2.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Chloroform	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Chloromethane	ND	3.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
2-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
4-Chlorotoluene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
cis-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Dibromochloromethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Dibromomethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,1-Dichloroethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,1-Dichloroethene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 Annual GW

Collection Date:

Lab ID: 1409803-005

Matrix: TRIP BLANK

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,2-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,3-Dichloropropane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
2,2-Dichloropropane	ND	2.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,1-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Hexachlorobutadiene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
2-Hexanone	ND	10		µg/L	1	9/19/2014 5:40:01 AM	R21295
Isopropylbenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
4-Isopropyltoluene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
4-Methyl-2-pentanone	ND	10		µg/L	1	9/19/2014 5:40:01 AM	R21295
Methylene Chloride	ND	3.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
n-Butylbenzene	ND	3.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
n-Propylbenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
sec-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Styrene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
tert-Butylbenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
trans-1,2-DCE	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Trichlorofluoromethane	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Vinyl chloride	ND	1.0		µg/L	1	9/19/2014 5:40:01 AM	R21295
Xylenes, Total	ND	1.5		µg/L	1	9/19/2014 5:40:01 AM	R21295
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	1	9/19/2014 5:40:01 AM	R21295
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	9/19/2014 5:40:01 AM	R21295
Surr: Dibromofluoromethane	90.1	70-130		%REC	1	9/19/2014 5:40:01 AM	R21295
Surr: Toluene-d8	86.8	70-130		%REC	1	9/19/2014 5:40:01 AM	R21295

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-NAPIS-9/11/14

Project: 2014 Annual GW

Collection Date: 9/11/2014

Lab ID: 1409803-006

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Acenaphthylene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Aniline	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Anthracene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Azobenzene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Benz(a)anthracene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Benzoic acid	ND	20		µg/L	1	9/19/2014 3:01:31 AM	15359
Benzyl alcohol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Carbazole	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
4-Chloroaniline	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2-Chlorophenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Chrysene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Di-n-octyl phthalate	ND	20		µg/L	1	9/19/2014 3:01:31 AM	15359
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Dibenzofuran	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Diethyl phthalate	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Dimethyl phthalate	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2014 3:01:31 AM	15359
2,4-Dimethylphenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2014 3:01:31 AM	15359
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2014 3:01:31 AM	15359

Refer to the QC Summary report and 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 greater than 2.
	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 **1409803**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-NAPIS-9/11/14

Project: 2014 Annual GW

Collection Date: 9/11/2014

Lab ID: 1409803-006

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Fluoranthene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Fluorene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Hexachlorobenzene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Hexachloroethane	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Isophorone	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
1-Methylnaphthalene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2-Methylnaphthalene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2-Methylphenol	ND	20		µg/L	1	9/19/2014 3:01:31 AM	15359
3+4-Methylphenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Naphthalene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
3-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
4-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Nitrobenzene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2-Nitrophenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
4-Nitrophenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Pentachlorophenol	ND	20		µg/L	1	9/19/2014 3:01:31 AM	15359
Phenanthrene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Phenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Pyrene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Pyridine	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2014 3:01:31 AM	15359
Surr: 2-Fluorophenol	48.2	12.1-85.8		%REC	1	9/19/2014 3:01:31 AM	15359
Surr: Phenol-d5	43.9	17.7-65.8		%REC	1	9/19/2014 3:01:31 AM	15359
Surr: 2,4,6-Tribromophenol	45.9	26-138		%REC	1	9/19/2014 3:01:31 AM	15359
Surr: Nitrobenzene-d5	61.2	47.5-119		%REC	1	9/19/2014 3:01:31 AM	15359
Surr: 2-Fluorobiphenyl	59.1	48.1-106		%REC	1	9/19/2014 3:01:31 AM	15359
Surr: 4-Terphenyl-d14	61.5	44-113		%REC	1	9/19/2014 3:01:31 AM	15359

Refer to the QC Summary report and 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 greater than 2.
	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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R21290			RunNo: 21290					
Prep Date:		Analysis Date: 9/18/2014			SeqNo: 621146		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								
Potassium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21290		RunNo: 21290					
Prep Date:			Analysis Date: 9/18/2014		SeqNo: 621147		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	99.0	85	115			
Calcium	49	1.0	50.00	0	97.2	85	115			
Chromium	0.48	0.0060	0.5000	0	96.8	85	115			
Copper	0.49	0.0060	0.5000	0	97.1	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Magnesium	49	1.0	50.00	0	97.8	85	115			
Potassium	48	1.0	50.00	0	96.0	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R21290			RunNo: 21290					
Prep Date:		Analysis Date: 9/18/2014			SeqNo: 621149		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								
Potassium	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R21290			RunNo: 21290				
Prep Date:	Analysis Date: 9/18/2014			SeqNo: 621150		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	96.7	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115			
Calcium	48	1.0	50.00	0	96.8	85	115			
Chromium	0.48	0.0060	0.5000	0	96.4	85	115			
Copper	0.48	0.0060	0.5000	0	95.5	85	115			
Iron	0.50	0.020	0.5000	0	99.0	85	115			
Magnesium	49	1.0	50.00	0	97.7	85	115			
Potassium	48	1.0	50.00	0	96.3	85	115			

Sample ID	LCS TEST		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21290		RunNo: 21290					
Prep Date:			Analysis Date: 9/18/2014		SeqNo: 621170		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	0.49	0.0020	0.5000	0	98.6	85	115			
Calcium	50	1.0	50.00	0	99.9	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	50	1.0	50.00	0	99.5	85	115			
Potassium	50	1.0	50.00	0	99.2	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R21336			RunNo: 21336					
Prep Date:		Analysis Date: 9/19/2014			SeqNo: 622776		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Iron	ND	0.020								
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: R21336		RunNo: 21336					
Prep Date:			Analysis Date: 9/19/2014		SeqNo: 622777		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	91.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: R21336			RunNo: 21336						
Prep Date:	Analysis Date: 9/19/2014			SeqNo: 622777		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0	93.2	85	115			
Manganese	0.45	0.0020	0.5000	0	89.7	85	115			
Sodium	50	1.0	50.00	0	99.3	85	115			
Zinc	0.46	0.010	0.5000	0	91.8	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: R21336			RunNo: 21336						
Prep Date:	Analysis Date: 9/19/2014			SeqNo: 622779		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Iron	ND	0.020								
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: R21336			RunNo: 21336						
Prep Date:	Analysis Date: 9/19/2014			SeqNo: 622780		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	94.1	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.5	85	115			
Sodium	49	1.0	50.00	0	98.5	85	115			
Zinc	0.47	0.010	0.5000	0	93.7	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: R21433			RunNo: 21433						
Prep Date:	Analysis Date: 9/24/2014			SeqNo: 626248		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: R21433			RunNo: 21433						
Prep Date:	Analysis Date: 9/24/2014			SeqNo: 626249		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	97.0	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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID:	PBW	Batch ID: R21433			RunNo: 21433						
Prep Date:		Analysis Date: 9/24/2014			SeqNo: 626252		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver		ND	0.0050								

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID:	LCSW	Batch ID: R21433			RunNo: 21433						
Prep Date:		Analysis Date: 9/24/2014			SeqNo: 626253		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	101	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB-15343		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 15343		RunNo: 21297					
Prep Date:	9/17/2014		Analysis Date: 9/18/2014		SeqNo: 621503		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-15343		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 15343		RunNo: 21297					
Prep Date:	9/17/2014		Analysis Date: 9/18/2014		SeqNo: 621504		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	97.2	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.6	85	115			
Chromium	0.49	0.0060	0.5000	0	98.1	85	115			
Copper	0.48	0.0060	0.5000	0	96.9	85	115			
Iron	0.48	0.020	0.5000	0	96.5	85	115			
Manganese	0.48	0.0020	0.5000	0	95.0	85	115			
Zinc	0.48	0.010	0.5000	0	96.9	85	115			

Sample ID	LCS Ag-15343		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 15343		RunNo: 21297					
Prep Date:	9/17/2014		Analysis Date: 9/18/2014		SeqNo: 621505		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	102	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R21493			RunNo: 21493						
Prep Date:	Analysis Date: 9/26/2014			SeqNo: 628608		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	94.7	85	115			
Selenium	0.022	0.0010	0.02500	0	90.0	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R21493			RunNo: 21493						
Prep Date:	Analysis Date: 9/26/2014			SeqNo: 628609		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	92.9	85	115			
Selenium	0.023	0.0010	0.02500	0	92.4	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R21493			RunNo: 21493						
Prep Date:	Analysis Date: 9/26/2014			SeqNo: 628610		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 MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R21493			RunNo: 21493						
Prep Date:	Analysis Date: 9/26/2014			SeqNo: 628611		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: R21527			RunNo: 21527						
Prep Date:	Analysis Date: 9/29/2014			SeqNo: 629894		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	99.4	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R21527			RunNo: 21527						
Prep Date:	Analysis Date: 9/29/2014			SeqNo: 629895		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
E Value 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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21527		RunNo: 21527					
Prep Date:			Analysis Date: 9/29/2014		SeqNo: 629895		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R21527			RunNo: 21527					
Prep Date:		Analysis Date: 9/29/2014			SeqNo: 629896		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R21527			RunNo: 21527					
Prep Date:		Analysis Date: 9/29/2014			SeqNo: 629897		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	LLLCS-15343		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 15343		RunNo: 21376					
Prep Date:	9/17/2014		Analysis Date: 9/23/2014		SeqNo: 624955		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	0.026	0.0010	0.02500	0	103	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	MB-15343		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 15343		RunNo: 21376					
Prep Date:	9/17/2014		Analysis Date: 9/23/2014		SeqNo: 624958		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB-15449	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	15449	RunNo:	21410					
Prep Date:	9/23/2014	Analysis Date:	9/24/2014	SeqNo:	625480	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-15449	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	15449	RunNo:	21410					
Prep Date:	9/23/2014	Analysis Date:	9/24/2014	SeqNo:	625481	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	97.5	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R21277		RunNo: 21277							
Prep Date:	Analysis Date: 9/17/2014		SeqNo: 620661		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: R21277		RunNo: 21277							
Prep Date:	Analysis Date: 9/17/2014		SeqNo: 620662		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	97.2	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.8	90	110			
Sulfate	10	0.50	10.00	0	99.6	90	110			

Sample ID 1409803-001EMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: KA-3	Batch ID: R21277		RunNo: 21277							
Prep Date:	Analysis Date: 9/17/2014		SeqNo: 620679		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.84	0.10	0.5000	0.4523	77.5	72.7	110			
Bromide	6.6	0.10	2.500	4.439	86.7	85.1	108			

Sample ID 1409803-001EMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: KA-3	Batch ID: R21277		RunNo: 21277							
Prep Date:	Analysis Date: 9/17/2014		SeqNo: 620680		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.85	0.10	0.5000	0.4523	79.1	72.7	110	0.984	20	
Bromide	6.6	0.10	2.500	4.439	87.5	85.1	108	0.320	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R21277		RunNo: 21277							
Prep Date:	Analysis Date: 9/17/2014		SeqNo: 620708		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								

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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R21277			RunNo: 21277						
Prep Date:	Analysis Date: 9/17/2014			SeqNo: 620708		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: R21277			RunNo: 21277						
Prep Date:	Analysis Date: 9/17/2014			SeqNo: 620709		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	96.8	90	110			
Bromide	2.3	0.10	2.500	0	93.0	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.3	90	110			
Sulfate	9.2	0.50	10.00	0	91.7	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R21283			RunNo: 21283						
Prep Date:	Analysis Date: 9/17/2014			SeqNo: 621017		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: R21283			RunNo: 21283						
Prep Date:	Analysis Date: 9/17/2014			SeqNo: 621018		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	97.6	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R21321			RunNo: 21321						
Prep Date:	Analysis Date: 9/18/2014			SeqNo: 622134		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: R21321			RunNo: 21321						
Prep Date:	Analysis Date: 9/18/2014			SeqNo: 622135		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	93.9	90	110			

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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB-15312	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW	Batch ID: 15312			RunNo: 21248					
Prep Date:	9/16/2014	Analysis Date: 9/17/2014			SeqNo: 619740		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	0.99		1.000		99.1	59	141			

Sample ID	LCS-15312		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 15312		RunNo: 21248					
Prep Date:	9/16/2014		Analysis Date: 9/17/2014		SeqNo: 619860		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	101	69.7	142			
Surr: DNOP	0.49		0.5000		98.9	59	141			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R21267	RunNo:	21267					
Prep Date:		Analysis Date:	9/17/2014	SeqNo:	620386	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		89.0	70.9	130			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R21267	RunNo:	21267					
Prep Date:		Analysis Date:	9/17/2014	SeqNo:	620387	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	98.4	80	120			
Surr: BFB	19		20.00		93.9	70.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R21295			RunNo: 21295					
Prep Date:		Analysis Date: 9/18/2014			SeqNo: 621332		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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R21295			RunNo: 21295					
Prep Date:		Analysis Date: 9/18/2014			SeqNo: 621332		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		90.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.0		10.00		89.5	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R21295			RunNo: 21295					
Prep Date:		Analysis Date: 9/18/2014			SeqNo: 621334		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	19	1.0	20.00	0	94.5	80	120			
Chlorobenzene	19	1.0	20.00	0	93.8	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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R21295			RunNo: 21295						
Prep Date:	Analysis Date: 9/18/2014			SeqNo: 621334		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	82.6	131			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.5	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.5	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.4	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID b3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R21295			RunNo: 21295						
Prep Date:	Analysis Date: 9/18/2014			SeqNo: 621370		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.	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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	b3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R21295	RunNo:	21295					
Prep Date:		Analysis Date:	9/18/2014	SeqNo:	621370	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	9.3		10.00		93.3	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	b3		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R21295		RunNo:	21295			
Prep Date:			Analysis Date:	9/18/2014		SeqNo:	621370	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.2		10.00		92.1	70	130			

Sample ID	100ng lcs2		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R21295		RunNo:	21295			
Prep Date:			Analysis Date:	9/18/2014		SeqNo:	621372	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	19	1.0	20.00	0	95.8	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	24	1.0	20.00	0	122	82.6	131			
Trichloroethene (TCE)	18	1.0	20.00	0	91.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.1	70	130			
Surr: Toluene-d8	9.3		10.00		92.6	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	mb-15342		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 15342		RunNo: 21301					
Prep Date:	9/17/2014		Analysis Date: 9/18/2014		SeqNo: 621609		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	20								
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	mb-15342	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	15342	RunNo:	21301					
Prep Date:	9/17/2014	Analysis Date:	9/18/2014	SeqNo:	621609	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	20								
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	93		200.0		46.3	12.1	85.8			
Surr: Phenol-d5	84		200.0		41.9	17.7	65.8			
Surr: 2,4,6-Tribromophenol	130		200.0		64.4	26	138			
Surr: Nitrobenzene-d5	66		100.0		65.5	47.5	119			
Surr: 2-Fluorobiphenyl	63		100.0		62.6	48.1	106			
Surr: 4-Terphenyl-d14	74		100.0		73.5	44	113			

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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	Ics-15342		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 15342		RunNo: 21301					
Prep Date:	9/17/2014		Analysis Date: 9/18/2014		SeqNo: 621610		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	58	10	100.0	0	58.1	47.9	114			
4-Chloro-3-methylphenol	130	10	200.0	0	62.8	51.7	122			
2-Chlorophenol	120	10	200.0	0	58.4	40.7	113			
1,4-Dichlorobenzene	50	10	100.0	0	50.4	39.6	99.9			
2,4-Dinitrotoluene	47	10	100.0	0	47.3	40.8	113			
N-Nitrosodi-n-propylamine	64	10	100.0	0	64.3	51.2	111			
4-Nitrophenol	66	10	200.0	0	32.8	15.7	86.9			
Pentachlorophenol	93	20	200.0	0	46.4	21.6	104			
Phenol	86	10	200.0	0	43.1	28.6	71.7			
Pyrene	64	10	100.0	0	64.2	54.2	128			
1,2,4-Trichlorobenzene	49	10	100.0	0	49.5	40.9	101			
Surr: 2-Fluorophenol	84		200.0		42.0	12.1	85.8			
Surr: Phenol-d5	80		200.0		39.9	17.7	65.8			
Surr: 2,4,6-Tribromophenol	110		200.0		55.7	26	138			
Surr: Nitrobenzene-d5	61		100.0		60.6	47.5	119			
Surr: 2-Fluorobiphenyl	57		100.0		56.6	48.1	106			
Surr: 4-Terphenyl-d14	67		100.0		66.5	44	113			

Sample ID	Icsd-15342		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 15342		RunNo: 21301					
Prep Date:	9/17/2014		Analysis Date: 9/18/2014		SeqNo: 621611		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	70.1	47.9	114	18.7	27.2	R
4-Chloro-3-methylphenol	140	10	200.0	0	72.1	51.7	122	13.7	25.9	
2-Chlorophenol	110	10	200.0	0	55.9	40.7	113	4.29	22.5	
1,4-Dichlorobenzene	52	10	100.0	0	51.9	39.6	99.9	2.93	24.6	
2,4-Dinitrotoluene	71	10	100.0	0	70.6	40.8	113	39.5	25.3	
N-Nitrosodi-n-propylamine	70	10	100.0	0	69.7	51.2	111	8.09	23.6	
4-Nitrophenol	69	10	200.0	0	34.4	15.7	86.9	4.53	34.7	
Pentachlorophenol	83	20	200.0	0	41.3	21.6	104	11.6	32.8	
Phenol	87	10	200.0	0	43.3	28.6	71.7	0.509	25.5	
Pyrene	82	10	100.0	0	82.0	54.2	128	24.4	31.4	
1,2,4-Trichlorobenzene	53	10	100.0	0	52.5	40.9	101	6.00	25.9	
Surr: 2-Fluorophenol	73		200.0		36.5	12.1	85.8	0	0	
Surr: Phenol-d5	77		200.0		38.4	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	110		200.0		53.7	26	138	0	0	
Surr: Nitrobenzene-d5	61		100.0		60.9	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	64		100.0		63.6	48.1	106	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	Icsd-15342		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 15342		RunNo: 21301					
Prep Date:	9/17/2014		Analysis Date: 9/18/2014		SeqNo: 621611		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	44	113	0	0	

Sample ID	mb-15359		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 15359		RunNo: 21301					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 621631		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	20								
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	mb-15359	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	15359	RunNo:	21301					
Prep Date:	9/18/2014	Analysis Date:	9/19/2014	SeqNo:	621631	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	20								
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID mb-15359	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 15359			RunNo: 21301						
Prep Date: 9/18/2014	Analysis Date: 9/19/2014			SeqNo: 621631		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	38		200.0		18.9	12.1	85.8			
Surr: Phenol-d5	56		200.0		27.9	17.7	65.8			
Surr: 2,4,6-Tribromophenol	58		200.0		29.2	26	138			
Surr: Nitrobenzene-d5	54		100.0		54.0	47.5	119			
Surr: 2-Fluorobiphenyl	54		100.0		54.2	48.1	106			
Surr: 4-Terphenyl-d14	73		100.0		72.6	44	113			

Sample ID lcs-15359	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSW	Batch ID: 15359			RunNo: 21301						
Prep Date: 9/18/2014	Analysis Date: 9/19/2014			SeqNo: 621632		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.1	47.9	114			
4-Chloro-3-methylphenol	150	10	200.0	0	73.9	51.7	122			
2-Chlorophenol	140	10	200.0	0	69.8	40.7	113			
1,4-Dichlorobenzene	58	10	100.0	0	57.8	39.6	99.9			
2,4-Dinitrotoluene	57	10	100.0	0	57.3	40.8	113			
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.1	51.2	111			
4-Nitrophenol	95	10	200.0	0	47.3	15.7	86.9			
Pentachlorophenol	130	20	200.0	0	67.4	21.6	104			
Phenol	110	10	200.0	0	53.1	28.6	71.7			
Pyrene	85	10	100.0	0	84.9	54.2	128			
1,2,4-Trichlorobenzene	57	10	100.0	0	56.5	40.9	101			
Surr: 2-Fluorophenol	98		200.0		48.9	12.1	85.8			
Surr: Phenol-d5	93		200.0		46.5	17.7	65.8			
Surr: 2,4,6-Tribromophenol	140		200.0		68.2	26	138			
Surr: Nitrobenzene-d5	69		100.0		69.4	47.5	119			
Surr: 2-Fluorobiphenyl	66		100.0		65.5	48.1	106			
Surr: 4-Terphenyl-d14	81		100.0		81.3	44	113			

Sample ID lcsd-15359	SampType: LCSD			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSS02	Batch ID: 15359			RunNo: 21301						
Prep Date: 9/18/2014	Analysis Date: 9/19/2014			SeqNo: 621633		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	56	10	100.0	0	56.2	47.9	114	14.7	27.2	
4-Chloro-3-methylphenol	130	10	200.0	0	65.3	51.7	122	12.4	25.9	
2-Chlorophenol	110	10	200.0	0	57.2	40.7	113	19.8	22.5	
1,4-Dichlorobenzene	45	10	100.0	0	45.1	39.6	99.9	24.6	24.6	R
2,4-Dinitrotoluene	50	10	100.0	0	49.6	40.8	113	14.6	25.3	

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 greater than 2.
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#: 1409803

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	lcsd-15359		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 15359		RunNo: 21301					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 621633		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.6	51.2	111	13.7	23.6	
4-Nitrophenol	75	10	200.0	0	37.3	15.7	86.9	23.7	34.7	
Pentachlorophenol	110	20	200.0	0	52.6	21.6	104	24.7	32.8	
Phenol	89	10	200.0	0	44.5	28.6	71.7	17.7	25.5	
Pyrene	70	10	100.0	0	69.7	54.2	128	19.7	31.4	
1,2,4-Trichlorobenzene	47	10	100.0	0	46.7	40.9	101	18.9	25.9	
Surr: 2-Fluorophenol	80		200.0		39.8	12.1	85.8	0	0	
Surr: Phenol-d5	78		200.0		39.0	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	130		200.0		65.7	26	138	0	0	
Surr: Nitrobenzene-d5	59		100.0		59.2	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	58		100.0		57.5	48.1	106	0	0	
Surr: 4-Terphenyl-d14	83		100.0		83.0	44	113	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 greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1409803**

RcptNo: **1**

Received by/date: C.S. 09/16/14

Logged By: **Ashley Gallegos** 9/16/2014 5:03:00 PM

Completed By: **Ashley Gallegos** 9/17/2014 8:01:48 AM

Reviewed By: AT 09/17/14

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: 12
(<2 or >12 unless noted)

Adjusted? No

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:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

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

☐ Other

EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Project Name: 2014 ~~2~~ 09/17/14

2041 ANNUAL GW

Project #:

NAPIS-1,-2,-3,KA-3

Project Manager:

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

Sampler:

On Ice: ☒ Yes

Sample Temperature:

110

HEAL No.

1409803

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallerivtoriental.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 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

June 27, 2014

Cheryl Johnson

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

RE: 2014 2nd Quarter

OrderNo.: 1406361

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/6/2014 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 that reads "John Caldwell". The signature is written in a cursive, flowing style.

John Caldwell

Supervisor

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 9:32:00 AM

Lab ID: 1406361-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/11/2014 2:33:19 AM	13579
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 2:33:19 AM	13579
Surr: DNOP	104	62.7-145		%REC	1	6/11/2014 2:33:19 AM	13579
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/10/2014 1:02:52 AM	R19139
Surr: BFB	94.7	70.9-130		%REC	1	6/10/2014 1:02:52 AM	R19139
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/10/2014 1:02:52 AM	R19139
Benzene	ND	1.0		µg/L	1	6/10/2014 1:02:52 AM	R19139
Toluene	ND	1.0		µg/L	1	6/10/2014 1:02:52 AM	R19139
Ethylbenzene	ND	1.0		µg/L	1	6/10/2014 1:02:52 AM	R19139
Xylenes, Total	ND	2.0		µg/L	1	6/10/2014 1:02:52 AM	R19139
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 1:02:52 AM	R19139
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 1:02:52 AM	R19139
Surr: 4-Bromofluorobenzene	109	82.9-139		%REC	1	6/10/2014 1:02:52 AM	R19139
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.40	0.10		mg/L	1	6/9/2014 3:10:35 PM	R19165
Chloride	86	10		mg/L	20	6/9/2014 3:23:00 PM	R19165
Bromide	1.4	0.10		mg/L	1	6/9/2014 3:10:35 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 3:10:35 PM	R19165
Sulfate	140	10		mg/L	20	6/9/2014 3:23:00 PM	R19165
Nitrate+Nitrite as N	14	1.0	*	mg/L	5	6/10/2014 12:04:24 AM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.12	0.0020		mg/L	1	6/10/2014 5:03:15 PM	R19167
Cadmium	ND	0.0020		mg/L	1	6/10/2014 5:03:15 PM	R19167
Chromium	ND	0.0060		mg/L	1	6/10/2014 5:03:15 PM	R19167
Copper	ND	0.0060		mg/L	1	6/10/2014 5:03:15 PM	R19167
Iron	0.025	0.020		mg/L	1	6/10/2014 5:03:15 PM	R19167
Manganese	0.059	0.0020	*	mg/L	1	6/10/2014 5:03:15 PM	R19167
Silver	ND	0.0050		mg/L	1	6/10/2014 5:03:15 PM	R19167
Zinc	ND	0.010		mg/L	1	6/10/2014 5:03:15 PM	R19167
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.15	0.0020		mg/L	1	6/17/2014 1:34:20 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 1:34:20 PM	13717
Calcium	83	1.0		mg/L	1	6/17/2014 1:34:20 PM	13717
Chromium	ND	0.0060		mg/L	1	6/17/2014 1:34:20 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 1:34:20 PM	13717

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 9:32:00 AM

Lab ID: 1406361-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Iron	1.2	0.10	*B	mg/L	5	6/18/2014 11:55:13 AM	13717
Magnesium	14	1.0		mg/L	1	6/17/2014 1:34:20 PM	13717
Manganese	0.12	0.0020	*	mg/L	1	6/18/2014 11:53:47 AM	13717
Potassium	3.7	1.0		mg/L	1	6/17/2014 1:34:20 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:18:31 PM	13717
Sodium	340	5.0		mg/L	5	6/18/2014 11:55:13 AM	13717
Zinc	0.012	0.010		mg/L	1	6/18/2014 11:53:47 AM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 2:18:18 PM	R19364
Lead	ND	0.0010		mg/L	1	6/12/2014 3:49:40 PM	R19228
Selenium	0.013	0.0050		mg/L	5	6/18/2014 2:18:18 PM	R19364
Uranium	0.010	0.0010		mg/L	1	6/12/2014 3:49:40 PM	R19228
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 3:09:40 PM	13717
Lead	ND	0.0050		mg/L	5	6/17/2014 3:09:40 PM	13717
Selenium	0.010	0.0050		mg/L	5	6/17/2014 3:09:40 PM	13717
Uranium	0.014	0.0050		mg/L	5	6/17/2014 3:09:40 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:41:35 AM	13722
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 5:17:49 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597

Refer to the QC Summary report and 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 43
	E Value 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 greater than 2.	
	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 1406361

Date Reported: 6/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 9:32:00 AM

Lab ID: 1406361-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 5:17:49 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 5:17:49 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 5:17:49 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
1-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 5:17:49 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597

Refer to the QC Summary report and 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 43
	E	Value 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 greater than 2.	
	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 **1406361**Date Reported: **6/27/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** NAPIS-1**Project:** 2014 2nd Quarter**Collection Date:** 6/5/2014 9:32:00 AM**Lab ID:** 1406361-001**Matrix:** AQUEOUS**Received Date:** 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Naphthalene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 5:17:49 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 5:17:49 PM	13597
Surr: 2-Fluorophenol	50.0	12.1-85.8		%REC	1	6/10/2014 5:17:49 PM	13597
Surr: Phenol-d5	41.2	17.7-65.8		%REC	1	6/10/2014 5:17:49 PM	13597
Surr: 2,4,6-Tribromophenol	58.2	26-138		%REC	1	6/10/2014 5:17:49 PM	13597
Surr: Nitrobenzene-d5	74.4	47.5-119		%REC	1	6/10/2014 5:17:49 PM	13597
Surr: 2-Fluorobiphenyl	71.2	48.1-106		%REC	1	6/10/2014 5:17:49 PM	13597
Surr: 4-Terphenyl-d14	68.0	44-113		%REC	1	6/10/2014 5:17:49 PM	13597

Refer to the QC Summary report and 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 43
	E	Value 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 greater than 2.	
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:46:00 AM

Lab ID: 1406361-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	1.5	1.0		mg/L	1	6/11/2014 2:54:44 AM	13579
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 2:54:44 AM	13579
Surr: DNOP	98.9	62.7-145		%REC	1	6/11/2014 2:54:44 AM	13579
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.62	0.050		mg/L	1	6/10/2014 2:35:32 AM	R19139
Surr: BFB	181	70.9-130	S	%REC	1	6/10/2014 2:35:32 AM	R19139
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	200	12		µg/L	5	6/12/2014 1:42:32 PM	R19229
Benzene	86	1.0		µg/L	1	6/10/2014 2:35:32 AM	R19139
Toluene	2.1	1.0		µg/L	1	6/10/2014 2:35:32 AM	R19139
Ethylbenzene	28	1.0		µg/L	1	6/10/2014 2:35:32 AM	R19139
Xylenes, Total	3.7	2.0		µg/L	1	6/10/2014 2:35:32 AM	R19139
1,2,4-Trimethylbenzene	2.9	1.0		µg/L	1	6/10/2014 2:35:32 AM	R19139
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 2:35:32 AM	R19139
Surr: 4-Bromofluorobenzene	156	82.9-139	S	%REC	1	6/10/2014 2:35:32 AM	R19139
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.3	0.10		mg/L	1	6/9/2014 3:35:25 PM	R19165
Chloride	330	10		mg/L	20	6/9/2014 3:47:50 PM	R19165
Bromide	0.94	0.10		mg/L	1	6/9/2014 3:35:25 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 3:35:25 PM	R19165
Sulfate	4.8	0.50		mg/L	1	6/9/2014 3:35:25 PM	R19165
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/10/2014 12:16:49 AM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.6	0.010		mg/L	5	6/10/2014 5:16:39 PM	R19167
Cadmium	ND	0.0020		mg/L	1	6/10/2014 5:14:56 PM	R19167
Chromium	ND	0.0060		mg/L	1	6/10/2014 5:14:56 PM	R19167
Copper	ND	0.0060		mg/L	1	6/10/2014 5:14:56 PM	R19167
Iron	2.6	0.10	*	mg/L	5	6/10/2014 5:16:39 PM	R19167
Manganese	1.4	0.010	*	mg/L	5	6/10/2014 5:16:39 PM	R19167
Silver	ND	0.0050		mg/L	1	6/10/2014 5:14:56 PM	R19167
Zinc	ND	0.010		mg/L	1	6/10/2014 5:14:56 PM	R19167
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.0	0.010		mg/L	5	6/18/2014 12:04:07 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 1:36:02 PM	13717
Calcium	100	5.0		mg/L	5	6/18/2014 12:04:07 PM	13717
Chromium	ND	0.0060		mg/L	1	6/17/2014 1:36:02 PM	13717
Copper	0.0097	0.0060		mg/L	1	6/17/2014 1:36:02 PM	13717

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:46:00 AM

Lab ID: 1406361-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Iron	3.9	0.10	*B	mg/L	5	6/18/2014 12:04:07 PM	13717
Magnesium	19	1.0		mg/L	1	6/17/2014 1:36:02 PM	13717
Manganese	1.3	0.010	*	mg/L	5	6/18/2014 12:04:07 PM	13717
Potassium	3.4	1.0		mg/L	1	6/17/2014 1:36:02 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:20:11 PM	13717
Sodium	400	5.0		mg/L	5	6/18/2014 12:04:07 PM	13717
Zinc	0.013	0.010		mg/L	1	6/18/2014 12:02:36 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0064	0.0050		mg/L	5	6/18/2014 2:23:17 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 2:23:17 PM	R19364
Selenium	0.010	0.0050		mg/L	5	6/18/2014 2:23:17 PM	R19364
Uranium	ND	0.0010		mg/L	1	6/25/2014 12:11:14 PM	R19508
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 3:14:39 PM	13717
Lead	ND	0.0050		mg/L	5	6/17/2014 3:14:39 PM	13717
Selenium	0.0095	0.0050		mg/L	5	6/17/2014 3:14:39 PM	13717
Uranium	ND	0.0050		mg/L	5	6/17/2014 3:14:39 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:43:20 AM	13722
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 5:47:10 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597

Refer to the QC Summary report and 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	Page 6 of 43
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:46:00 AM

Lab ID: 1406361-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 5:47:10 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 5:47:10 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 5:47:10 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
1-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 5:47:10 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597

Refer to the QC Summary report and 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 7 of 43
	E	Value 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 greater than 2.	
	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 **1406361**Date Reported: **6/27/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** NAPIS-2**Project:** 2014 2nd Quarter**Collection Date:** 6/5/2014 11:46:00 AM**Lab ID:** 1406361-002**Matrix:** AQUEOUS**Received Date:** 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Naphthalene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 5:47:10 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 5:47:10 PM	13597
Surr: 2-Fluorophenol	59.6	12.1-85.8		%REC	1	6/10/2014 5:47:10 PM	13597
Surr: Phenol-d5	53.0	17.7-65.8		%REC	1	6/10/2014 5:47:10 PM	13597
Surr: 2,4,6-Tribromophenol	83.7	26-138		%REC	1	6/10/2014 5:47:10 PM	13597
Surr: Nitrobenzene-d5	94.2	47.5-119		%REC	1	6/10/2014 5:47:10 PM	13597
Surr: 2-Fluorobiphenyl	91.6	48.1-106		%REC	1	6/10/2014 5:47:10 PM	13597
Surr: 4-Terphenyl-d14	85.6	44-113		%REC	1	6/10/2014 5:47:10 PM	13597

Refer to the QC Summary report and 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 8 of 43
	E	Value 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 greater than 2.	
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 8:40:00 AM

Lab ID: 1406361-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/11/2014 3:16:21 AM	13579
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 3:16:21 AM	13579
Surr: DNOP	105	62.7-145		%REC	1	6/11/2014 3:16:21 AM	13579
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/10/2014 3:35:33 AM	R19139
Surr: BFB	99.6	70.9-130		%REC	1	6/10/2014 3:35:33 AM	R19139
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	5.6	2.5		µg/L	1	6/10/2014 3:35:33 AM	R19139
Benzene	ND	1.0		µg/L	1	6/10/2014 3:35:33 AM	R19139
Toluene	ND	1.0		µg/L	1	6/10/2014 3:35:33 AM	R19139
Ethylbenzene	ND	1.0		µg/L	1	6/10/2014 3:35:33 AM	R19139
Xylenes, Total	ND	2.0		µg/L	1	6/10/2014 3:35:33 AM	R19139
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 3:35:33 AM	R19139
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 3:35:33 AM	R19139
Surr: 4-Bromofluorobenzene	115	82.9-139		%REC	1	6/10/2014 3:35:33 AM	R19139
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.0	0.10		mg/L	1	6/9/2014 4:25:05 PM	R19165
Chloride	180	10		mg/L	20	6/9/2014 4:37:30 PM	R19165
Bromide	1.6	0.10		mg/L	1	6/9/2014 4:25:05 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 4:25:05 PM	R19165
Sulfate	95	10		mg/L	20	6/9/2014 4:37:30 PM	R19165
Nitrate+Nitrite as N	7.7	1.0		mg/L	5	6/10/2014 12:29:13 AM	R19165
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Calcium	62	1.0		mg/L	1	6/17/2014 1:39:33 PM	13717
Magnesium	15	1.0		mg/L	1	6/17/2014 1:39:33 PM	13717
Potassium	5.3	1.0		mg/L	1	6/17/2014 1:39:33 PM	13717
Sodium	390	5.0		mg/L	5	6/18/2014 12:05:44 PM	13717
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 8:40:00 AM

Lab ID: 1406361-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 6:16:28 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 6:16:28 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 6:16:28 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 6:16:28 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 8:40:00 AM

Lab ID: 1406361-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Isophorone	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
1-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 6:16:28 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Naphthalene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 6:16:28 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 6:16:28 PM	13597
Surr: 2-Fluorophenol	43.8	12.1-85.8		%REC	1	6/10/2014 6:16:28 PM	13597
Surr: Phenol-d5	36.8	17.7-65.8		%REC	1	6/10/2014 6:16:28 PM	13597
Surr: 2,4,6-Tribromophenol	59.6	26-138		%REC	1	6/10/2014 6:16:28 PM	13597
Surr: Nitrobenzene-d5	69.1	47.5-119		%REC	1	6/10/2014 6:16:28 PM	13597
Surr: 2-Fluorobiphenyl	68.5	48.1-106		%REC	1	6/10/2014 6:16:28 PM	13597
Surr: 4-Terphenyl-d14	67.4	44-113		%REC	1	6/10/2014 6:16:28 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 8:28:00 AM

Lab ID: 1406361-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/11/2014 3:37:46 AM	13579
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 3:37:46 AM	13579
Surr: DNOP	116	62.7-145		%REC	1	6/11/2014 3:37:46 AM	13579
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/12/2014 2:12:56 PM	R19229
Surr: BFB	98.6	70.9-130		%REC	1	6/12/2014 2:12:56 PM	R19229
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/12/2014 2:12:56 PM	R19229
Benzene	ND	1.0		µg/L	1	6/12/2014 2:12:56 PM	R19229
Toluene	ND	1.0		µg/L	1	6/12/2014 2:12:56 PM	R19229
Ethylbenzene	ND	1.0		µg/L	1	6/12/2014 2:12:56 PM	R19229
Xylenes, Total	ND	2.0		µg/L	1	6/12/2014 2:12:56 PM	R19229
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 2:12:56 PM	R19229
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 2:12:56 PM	R19229
Surr: 4-Bromofluorobenzene	111	82.9-139		%REC	1	6/12/2014 2:12:56 PM	R19229
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.30	0.10		mg/L	1	6/9/2014 4:49:54 PM	R19165
Chloride	910	50		mg/L	100	6/11/2014 1:16:02 AM	R19191
Bromide	5.3	0.10		mg/L	1	6/9/2014 4:49:54 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 4:49:54 PM	R19165
Sulfate	400	10		mg/L	20	6/9/2014 5:02:19 PM	R19165
Nitrate+Nitrite as N	19	1.0	*	mg/L	5	6/10/2014 12:41:37 AM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.094	0.0020		mg/L	1	6/10/2014 5:26:41 PM	R19167
Cadmium	ND	0.0020		mg/L	1	6/10/2014 5:26:41 PM	R19167
Chromium	0.0073	0.0060		mg/L	1	6/10/2014 5:26:41 PM	R19167
Copper	ND	0.0060		mg/L	1	6/12/2014 4:17:21 PM	R19227
Iron	2.6	0.10	*	mg/L	5	6/10/2014 5:28:32 PM	R19167
Manganese	0.058	0.0020	*	mg/L	1	6/10/2014 5:26:41 PM	R19167
Silver	ND	0.0050		mg/L	1	6/12/2014 4:17:21 PM	R19227
Zinc	0.070	0.010		mg/L	1	6/10/2014 5:26:41 PM	R19167
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.23	0.0020		mg/L	1	6/17/2014 1:41:20 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 1:41:20 PM	13717
Calcium	55	1.0		mg/L	1	6/17/2014 1:41:20 PM	13717
Chromium	0.016	0.0060		mg/L	1	6/17/2014 1:41:20 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 1:41:20 PM	13717

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 8:28:00 AM

Lab ID: 1406361-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Iron	5.8	0.20	*B	mg/L	10	6/18/2014 12:08:39 PM	13717
Magnesium	9.0	1.0		mg/L	1	6/17/2014 1:41:20 PM	13717
Manganese	0.16	0.0020	*	mg/L	1	6/18/2014 12:07:09 PM	13717
Potassium	9.8	1.0		mg/L	1	6/17/2014 1:41:20 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:21:46 PM	13717
Sodium	920	10		mg/L	10	6/18/2014 12:08:39 PM	13717
Zinc	0.14	0.010		mg/L	1	6/18/2014 12:07:09 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	6/19/2014 5:21:20 PM	R19391
Lead	ND	0.010		mg/L	10	6/19/2014 5:21:20 PM	R19391
Selenium	0.045	0.010		mg/L	10	6/19/2014 5:21:20 PM	R19391
Uranium	0.034	0.010	*	mg/L	10	6/19/2014 5:21:20 PM	R19391
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0076	0.0050		mg/L	5	6/17/2014 3:24:37 PM	13717
Lead	0.0073	0.0050		mg/L	5	6/17/2014 3:24:37 PM	13717
Selenium	0.032	0.0050		mg/L	5	6/17/2014 3:24:37 PM	13717
Uranium	0.032	0.0050	*	mg/L	5	6/17/2014 3:24:37 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:48:47 AM	13722
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 6:45:47 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 1406361

Date Reported: 6/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 8:28:00 AM

Lab ID: 1406361-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 6:45:47 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 6:45:47 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 6:45:47 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
1-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 6:45:47 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 8:28:00 AM

Lab ID: 1406361-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Naphthalene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 6:45:47 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 6:45:47 PM	13597
Surr: 2-Fluorophenol	49.5	12.1-85.8		%REC	1	6/10/2014 6:45:47 PM	13597
Surr: Phenol-d5	39.9	17.7-65.8		%REC	1	6/10/2014 6:45:47 PM	13597
Surr: 2,4,6-Tribromophenol	59.5	26-138		%REC	1	6/10/2014 6:45:47 PM	13597
Surr: Nitrobenzene-d5	80.1	47.5-119		%REC	1	6/10/2014 6:45:47 PM	13597
Surr: 2-Fluorobiphenyl	73.6	48.1-106		%REC	1	6/10/2014 6:45:47 PM	13597
Surr: 4-Terphenyl-d14	71.2	44-113		%REC	1	6/10/2014 6:45:47 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 3:56:00 PM

Lab ID: 1406361-005

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	8.0	1.0		mg/L	1	6/11/2014 3:59:18 AM	13579
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 3:59:18 AM	13579
Surr: DNOP	93.5	62.7-145		%REC	1	6/11/2014 3:59:18 AM	13579
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	12	1.0		mg/L	20	6/13/2014 1:43:57 PM	R19246
Surr: BFB	128	70.9-130		%REC	20	6/13/2014 1:43:57 PM	R19246
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	6/13/2014 1:43:57 PM	R19246
Benzene	520	20		µg/L	20	6/13/2014 1:43:57 PM	R19246
Toluene	35	20		µg/L	20	6/13/2014 1:43:57 PM	R19246
Ethylbenzene	180	20		µg/L	20	6/13/2014 1:43:57 PM	R19246
Xylenes, Total	2800	40		µg/L	20	6/13/2014 1:43:57 PM	R19246
1,2,4-Trimethylbenzene	760	20		µg/L	20	6/13/2014 1:43:57 PM	R19246
1,3,5-Trimethylbenzene	250	20		µg/L	20	6/13/2014 1:43:57 PM	R19246
Surr: 4-Bromofluorobenzene	137	82.9-139		%REC	20	6/13/2014 1:43:57 PM	R19246
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.082	0.0020		mg/L	1	6/10/2014 5:30:23 PM	R19167
Cadmium	ND	0.0020		mg/L	1	6/10/2014 5:30:23 PM	R19167
Chromium	0.043	0.0060		mg/L	1	6/10/2014 5:30:23 PM	R19167
Copper	ND	0.0060		mg/L	1	6/10/2014 5:30:23 PM	R19167
Iron	0.92	0.020	*	mg/L	1	6/10/2014 5:30:23 PM	R19167
Manganese	1.9	0.010	*	mg/L	5	6/10/2014 5:32:05 PM	R19167
Silver	ND	0.0050		mg/L	1	6/12/2014 4:19:09 PM	R19227
Zinc	0.022	0.010		mg/L	1	6/10/2014 5:30:23 PM	R19167
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.15	0.0020		mg/L	1	6/17/2014 1:43:08 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 1:43:08 PM	13717
Chromium	0.058	0.0060		mg/L	1	6/17/2014 1:43:08 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 1:43:08 PM	13717
Iron	16	0.40	*B	mg/L	20	6/18/2014 12:13:14 PM	13717
Manganese	2.0	0.010	*	mg/L	5	6/18/2014 12:11:44 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:30:24 PM	13717
Zinc	0.50	0.010		mg/L	1	6/18/2014 12:10:16 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0020		mg/L	2	6/12/2014 4:04:56 PM	R19228
Lead	ND	0.0010		mg/L	1	6/25/2014 12:13:39 PM	R19508
Selenium	0.0027	0.0020		mg/L	2	6/12/2014 4:04:56 PM	R19228

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 greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 3:56:00 PM

Lab ID: 1406361-005

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Uranium	0.0011	0.0010		mg/L	1	6/25/2014 12:13:39 PM	R19508
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 3:29:36 PM	13717
Lead	ND	0.0050		mg/L	5	6/17/2014 3:29:36 PM	13717
Selenium	ND	0.0050		mg/L	5	6/17/2014 3:29:36 PM	13717
Uranium	ND	0.0050		mg/L	5	6/17/2014 3:29:36 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:50:33 AM	13722

Refer to the QC Summary report and 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 17 of 43
	E	Value 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 greater than 2.	
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EAST LDU

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 3:40:00 PM

Lab ID: 1406361-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	29	1.0		mg/L	1	6/11/2014 4:20:47 AM	13579
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 4:20:47 AM	13579
Surr: DNOP	89.9	62.7-145		%REC	1	6/11/2014 4:20:47 AM	13579
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	130	10		mg/L	200	6/12/2014 3:43:26 PM	R19229
Surr: BFB	122	70.9-130		%REC	200	6/12/2014 3:43:26 PM	R19229
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	6/12/2014 3:43:26 PM	R19229
Benzene	8900	200		µg/L	200	6/12/2014 3:43:26 PM	R19229
Toluene	21000	2000		µg/L	2E	6/12/2014 3:13:26 PM	R19229
Ethylbenzene	2300	200		µg/L	200	6/12/2014 3:43:26 PM	R19229
Xylenes, Total	19000	400		µg/L	200	6/12/2014 3:43:26 PM	R19229
1,2,4-Trimethylbenzene	3600	200		µg/L	200	6/12/2014 3:43:26 PM	R19229
1,3,5-Trimethylbenzene	1200	200		µg/L	200	6/12/2014 3:43:26 PM	R19229
Surr: 4-Bromofluorobenzene	130	82.9-139		%REC	200	6/12/2014 3:43:26 PM	R19229
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.32	0.0020		mg/L	1	6/10/2014 5:33:50 PM	R19167
Cadmium	ND	0.0020		mg/L	1	6/10/2014 5:33:50 PM	R19167
Chromium	0.52	0.0060	*	mg/L	1	6/10/2014 5:33:50 PM	R19167
Copper	ND	0.0060		mg/L	1	6/10/2014 5:33:50 PM	R19167
Iron	0.025	0.020		mg/L	1	6/10/2014 5:33:50 PM	R19167
Manganese	1.5	0.010	*	mg/L	5	6/10/2014 5:35:47 PM	R19167
Silver	ND	0.0050		mg/L	1	6/12/2014 4:20:51 PM	R19227
Zinc	0.021	0.010		mg/L	1	6/10/2014 5:33:50 PM	R19167
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.33	0.0020		mg/L	1	6/17/2014 1:57:12 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 1:57:12 PM	13717
Chromium	0.54	0.0060	*	mg/L	1	6/17/2014 1:57:12 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 1:57:12 PM	13717
Iron	1.1	0.10	*B	mg/L	5	6/18/2014 12:16:22 PM	13717
Manganese	1.5	0.010	*	mg/L	5	6/18/2014 12:16:22 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:32:00 PM	13717
Zinc	0.027	0.010		mg/L	1	6/18/2014 12:14:52 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.021	0.0050	*	mg/L	5	6/12/2014 4:07:59 PM	R19228
Lead	ND	0.0050		mg/L	5	6/25/2014 12:16:03 PM	R19508
Selenium	0.056	0.0050	*	mg/L	5	6/12/2014 4:07:59 PM	R19228

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EAST LDU

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 3:40:00 PM

Lab ID: 1406361-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Uranium	ND	0.0050		mg/L	5	6/25/2014 12:16:03 PM	R19508
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.019	0.0050	*	mg/L	5	6/17/2014 5:34:24 PM	13717
Lead	ND	0.0050		mg/L	5	6/17/2014 5:34:24 PM	13717
Selenium	ND	0.0050		mg/L	5	6/17/2014 5:34:24 PM	13717
Uranium	ND	0.0050		mg/L	5	6/17/2014 5:34:24 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:52:21 AM	13722

Refer to the QC Summary report and 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 19 of 43
	E	Value 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 greater than 2.	
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-GROUP1-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 12:40:00 PM

Lab ID: 1406361-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/12/2014 4:43:33 PM	R19229
Benzene	ND	1.0		µg/L	1	6/12/2014 4:43:33 PM	R19229
Toluene	ND	1.0		µg/L	1	6/12/2014 4:43:33 PM	R19229
Ethylbenzene	ND	1.0		µg/L	1	6/12/2014 4:43:33 PM	R19229
Xylenes, Total	ND	2.0		µg/L	1	6/12/2014 4:43:33 PM	R19229
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 4:43:33 PM	R19229
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 4:43:33 PM	R19229
Surr: 4-Bromofluorobenzene	108	82.9-139		%REC	1	6/12/2014 4:43:33 PM	R19229

Refer to the QC Summary report and 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 20 of 43
	E	Value 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 greater than 2.	
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-NAPIS-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014

Lab ID: 1406361-008

Matrix: AQUEOUS

Received Date: 6/6/2014 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	6/10/2014 7:14:59 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 7:14:59 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 7:14:59 PM	13597
2,4-Dimethylphenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 7:14:59 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 7:14:59 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-NAPIS-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014

Lab ID: 1406361-008

Matrix: AQUEOUS

Received Date: 6/6/2014 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	6/10/2014 7:14:59 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
1-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 7:14:59 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Naphthalene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 7:14:59 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Pyrene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 7:14:59 PM	13597
Surr: 2-Fluorophenol	49.6	12.1-85.8		%REC	1	6/10/2014 7:14:59 PM	13597
Surr: Phenol-d5	41.8	17.7-65.8		%REC	1	6/10/2014 7:14:59 PM	13597
Surr: 2,4,6-Tribromophenol	67.8	26-138		%REC	1	6/10/2014 7:14:59 PM	13597
Surr: Nitrobenzene-d5	86.1	47.5-119		%REC	1	6/10/2014 7:14:59 PM	13597
Surr: 2-Fluorobiphenyl	79.6	48.1-106		%REC	1	6/10/2014 7:14:59 PM	13597
Surr: 4-Terphenyl-d14	73.7	44-113		%REC	1	6/10/2014 7:14:59 PM	13597

Refer to the QC Summary report and 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 greater than 2.
	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 **1406361**

Date Reported: **6/27/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2014 2nd Quarter

Collection Date:

Lab ID: 1406361-009

Matrix: AQUEOUS

Received Date: 6/6/2014 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	6/12/2014 5:13:42 PM	R19229
Surr: BFB	94.7	70.9-130		%REC	1	6/12/2014 5:13:42 PM	R19229
EPA METHOD 8021B: VOLATILES				Analyst: NSB			
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/12/2014 5:13:42 PM	R19229
Benzene	ND	1.0		µg/L	1	6/12/2014 5:13:42 PM	R19229
Toluene	ND	1.0		µg/L	1	6/12/2014 5:13:42 PM	R19229
Ethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:13:42 PM	R19229
Xylenes, Total	ND	2.0		µg/L	1	6/12/2014 5:13:42 PM	R19229
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:13:42 PM	R19229
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/12/2014 5:13:42 PM	R19229
Surr: 4-Bromofluorobenzene	106	82.9-139		%REC	1	6/12/2014 5:13:42 PM	R19229

Refer to the QC Summary report and 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 23 of 43
	E	Value 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 greater than 2.	
	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#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R19167			RunNo: 19167					
Prep Date:		Analysis Date: 6/10/2014			SeqNo: 554043		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		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19167		RunNo: 19167					
Prep Date:			Analysis Date: 6/10/2014		SeqNo: 554044		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	0.49	0.0020	0.5000	0	98.8	85	115			
Chromium	0.50	0.0060	0.5000	0	99.6	85	115			
Copper	0.49	0.0060	0.5000	0	97.1	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.53	0.010	0.5000	0	106	85	115			

Sample ID	1406361-001FMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R19167		RunNo: 19167					
Prep Date:			Analysis Date: 6/10/2014		SeqNo: 554330		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.1224	95.4	70	130			
Cadmium	0.47	0.0020	0.5000	0	94.3	70	130			
Chromium	0.47	0.0060	0.5000	0	94.6	70	130			
Copper	0.48	0.0060	0.5000	0	95.4	70	130			
Iron	0.52	0.020	0.5000	0.02480	99.5	70	130			
Manganese	0.55	0.0020	0.5000	0.05855	97.6	70	130			
Silver	0.089	0.0050	0.1000	0.002550	86.1	70	130			
Zinc	0.51	0.010	0.5000	0.009880	99.3	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406361-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R19167		RunNo: 19167					
Prep Date:			Analysis Date: 6/10/2014		SeqNo: 554331		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0020	0.5000	0.1224	92.2	70	130	2.72	20	
Cadmium	0.46	0.0020	0.5000	0	91.3	70	130	3.26	20	
Chromium	0.46	0.0060	0.5000	0	92.4	70	130	2.30	20	
Copper	0.46	0.0060	0.5000	0	92.1	70	130	3.49	20	
Iron	0.51	0.020	0.5000	0.02480	96.7	70	130	2.71	20	
Manganese	0.53	0.0020	0.5000	0.05855	94.6	70	130	2.75	20	
Silver	0.086	0.0050	0.1000	0.002550	83.5	70	130	2.95	20	
Zinc	0.50	0.010	0.5000	0.009880	97.7	70	130	1.64	20	

Sample ID	MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals						
Client ID:	PBW	Batch ID: R19227		RunNo: 19227						
Prep Date:		Analysis Date: 6/12/2014		SeqNo: 555952		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: R19227		RunNo: 19227					
Prep Date:			Analysis Date: 6/12/2014		SeqNo: 555953		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	98.2	85	115			
Silver	0.099	0.0050	0.1000	0	98.8	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13717		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	13717		RunNo:	19331			
Prep Date:	6/16/2014		Analysis Date:	6/17/2014		SeqNo:	558754		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								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-13717		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	13717		RunNo:	19331			
Prep Date:	6/16/2014		Analysis Date:	6/17/2014		SeqNo:	558755		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	99.6	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.49	0.0060	0.5000	0	97.9	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.098	0.0050	0.1000	0	98.0	85	115			
Sodium	50	1.0	50.00	0	99.8	85	115			
Zinc	0.51	0.010	0.5000	0	103	85	115			

Sample ID	MB-13717		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	13717		RunNo:	19331			
Prep Date:	6/16/2014		Analysis Date:	6/17/2014		SeqNo:	558756		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								

Sample ID	LCS-13717		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	13717		RunNo:	19331			
Prep Date:	6/16/2014		Analysis Date:	6/17/2014		SeqNo:	558757		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	50	1.0	50.00	0	99.7	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13717		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 13717		RunNo: 19357					
Prep Date:	6/16/2014		Analysis Date: 6/18/2014		SeqNo: 559813		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020								

Sample ID	LCS-13717		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 13717		RunNo: 19357					
Prep Date:	6/16/2014		Analysis Date: 6/18/2014		SeqNo: 559814		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.53	0.020	0.5000	0	107	85	115			B

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID LCS	SampType: LCS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: LCSW	Batch ID: R19228				RunNo: 19228					
Prep Date:	Analysis Date: 6/12/2014				SeqNo: 556140		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	0.024	0.0010	0.02500	0	96.9	85	115			
Selenium	0.024	0.0010	0.02500	0	97.0	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID LCS	SampType: LCS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: LCSW	Batch ID: R19228				RunNo: 19228					
Prep Date:	Analysis Date: 6/12/2014				SeqNo: 556141		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			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: R19228				RunNo: 19228					
Prep Date:	Analysis Date: 6/12/2014				SeqNo: 556142		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: R19228				RunNo: 19228					
Prep Date:	Analysis Date: 6/12/2014				SeqNo: 556143		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: R19364				RunNo: 19364					
Prep Date:	Analysis Date: 6/18/2014				SeqNo: 560092		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			
Lead	0.024	0.0010	0.02500	0	94.8	85	115			
Selenium	0.024	0.0010	0.02500	0	97.6	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 greater than 2.
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#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID LCS	SampType: LCS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: LCSW	Batch ID: R19364				RunNo: 19364					
Prep Date:	Analysis Date: 6/18/2014				SeqNo: 560093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.7	85	115			
Lead	0.023	0.0010	0.02500	0	93.9	85	115			

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: R19364				RunNo: 19364					
Prep Date:	Analysis Date: 6/18/2014				SeqNo: 560094		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: R19364				RunNo: 19364					
Prep Date:	Analysis Date: 6/18/2014				SeqNo: 560095		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Sample ID LCS	SampType: LCS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: LCSW	Batch ID: R19391				RunNo: 19391					
Prep Date:	Analysis Date: 6/19/2014				SeqNo: 561037		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	0.025	0.0010	0.02500	0	99.4	85	115			
Selenium	0.025	0.0010	0.02500	0	98.7	85	115			
Uranium	0.024	0.0010	0.02500	0	96.0	85	115			

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: R19391				RunNo: 19391					
Prep Date:	Analysis Date: 6/19/2014				SeqNo: 561038		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
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#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19508		RunNo: 19508					
Prep Date:			Analysis Date: 6/25/2014		SeqNo: 564692		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	99.1	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19508		RunNo: 19508					
Prep Date:			Analysis Date: 6/25/2014		SeqNo: 564693		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	99.4	85	115			
Uranium	0.025	0.0010	0.02500	0	99.1	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R19508		RunNo: 19508					
Prep Date:			Analysis Date: 6/25/2014		SeqNo: 564694		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R19508		RunNo: 19508					
Prep Date:			Analysis Date: 6/25/2014		SeqNo: 564695		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LLLCS-13717		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 13717		RunNo: 19343					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 559197		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	0.025	0.0010	0.02500	0	98.4	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			
Uranium	0.023	0.0010	0.02500	0	93.0	85	115			

Sample ID	MB-13717		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 13717		RunNo: 19343					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 559199		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13722	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	13722	RunNo:	19315					
Prep Date:	6/16/2014	Analysis Date:	6/17/2014	SeqNo:	558343	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-13722	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	13722	RunNo:	19315					
Prep Date:	6/16/2014	Analysis Date:	6/17/2014	SeqNo:	558344	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	98.8	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19165	RunNo:	19165					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553915	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:	R19165	RunNo:	19165					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553916	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	97.4	90	110			
Chloride	4.6	0.50	5.000	0	92.0	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.9	90	110			
Sulfate	9.4	0.50	10.00	0	93.5	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19191	RunNo:	19191					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554760	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:	R19191	RunNo:	19191					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554761	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	91.7	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13579		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 13579		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/10/2014		SeqNo: 554461		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		103	62.7	145			

Sample ID	LCS-13579		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 13579		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/10/2014		SeqNo: 554463		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	78.6	146			
Surr: DNOP	0.49		0.5000		98.7	62.7	145			

Sample ID	LCSD-13579		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 13579		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554464		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.2	1.0	5.000	0	125	78.6	146	8.97	26.5	
Surr: DNOP	0.53		0.5000		106	62.7	145	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R19139	RunNo:	19139					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553037	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		93.7	70.9	130			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R19139	RunNo:	19139					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	106	80	120			
Surr: BFB	20		20.00		102	70.9	130			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556148	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		94.8	70.9	130			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556149	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	93.6	80	120			
Surr: BFB	21		20.00		105	70.9	130			

Sample ID	1406361-005AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	WEST LDU	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556154	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	63	5.0	50.00	11.46	103	79	121			
Surr: BFB	2200		2000		112	70.9	130			

Sample ID	1406361-005AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	WEST LDU	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556155	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406361-005AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	WEST LDU		Batch ID: R19229		RunNo: 19229					
Prep Date:			Analysis Date: 6/12/2014		SeqNo: 556155		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	61	5.0	50.00	11.46	98.6	79	121	3.37	20	
Surr: BFB	2200		2000		111	70.9	130	0	0	

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R19246			RunNo: 19246					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557095		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		94.9	70.9	130			

Sample ID	2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID: R19246			RunNo: 19246					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557096		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	120			
Surr: BFB	22		20.00		111	70.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R19139	RunNo:	19139					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553068	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	22		20.00		109	82.9	139			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R19139	RunNo:	19139					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553069	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	105	71.1	128			
Benzene	21	1.0	20.00	0	106	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	64	2.0	60.00	0	107	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	80	120			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	111	80	120			
Surr: 4-Bromofluorobenzene	23		20.00		114	82.9	139			

Sample ID	1406361-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	NAPIS-1	Batch ID:	R19139	RunNo:	19139					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	553076	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.6040	90.9	62.4	135			
Benzene	21	1.0	20.00	0.5360	102	71	129			
Toluene	21	1.0	20.00	0	103	68.4	135			
Ethylbenzene	21	1.0	20.00	0	103	69.4	135			
Xylenes, Total	63	2.0	60.00	0	106	72.4	135			
1,2,4-Trimethylbenzene	21	1.0	20.00	0.2920	103	67.1	135			
1,3,5-Trimethylbenzene	21	1.0	20.00	0.2680	106	75.9	130			
Surr: 4-Bromofluorobenzene	24		20.00		121	82.9	139			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406361-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	NAPIS-1		Batch ID: R19139		RunNo: 19139					
Prep Date:			Analysis Date: 6/10/2014		SeqNo: 553077		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.6040	92.4	62.4	135	1.55	20	
Benzene	21	1.0	20.00	0.5360	104	71	129	1.05	20	
Toluene	21	1.0	20.00	0	103	68.4	135	0.835	20	
Ethylbenzene	21	1.0	20.00	0	103	69.4	135	0.514	20	
Xylenes, Total	64	2.0	60.00	0	106	72.4	135	0.309	20	
1,2,4-Trimethylbenzene	21	1.0	20.00	0.2920	104	67.1	135	0.658	20	
1,3,5-Trimethylbenzene	22	1.0	20.00	0.2680	107	75.9	130	0.917	20	
Surr: 4-Bromofluorobenzene	24		20.00		121	82.9	139	0	0	

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R19229			RunNo: 19229					
Prep Date:		Analysis Date: 6/12/2014			SeqNo: 556211		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	22		20.00		108	82.9	139			

Sample ID	1406361-004AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	NAPIS-3		Batch ID: R19229		RunNo: 19229					
Prep Date:			Analysis Date: 6/12/2014		SeqNo: 556217		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	90.7	62.4	135			
Benzene	22	1.0	20.00	0.4380	108	71	129			
Toluene	22	1.0	20.00	0.4800	105	68.4	135			
Ethylbenzene	21	1.0	20.00	0	106	69.4	135			
Xylenes, Total	65	2.0	60.00	0.6520	108	72.4	135			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	67.1	135			
1,3,5-Trimethylbenzene	22	1.0	20.00	0.5020	108	75.9	130			
Surr: 4-Bromofluorobenzene	25		20.00		124	82.9	139			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406361-004AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	NAPIS-3		Batch ID: R19229		RunNo: 19229					
Prep Date:			Analysis Date: 6/12/2014		SeqNo: 556219		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.0	62.4	135	1.96	20	
Benzene	21	1.0	20.00	0.4380	104	71	129	3.47	20	
Toluene	21	1.0	20.00	0.4800	103	68.4	135	2.13	20	
Ethylbenzene	21	1.0	20.00	0	104	69.4	135	1.77	20	
Xylenes, Total	64	2.0	60.00	0.6520	105	72.4	135	2.47	20	
1,2,4-Trimethylbenzene	21	1.0	20.00	0	106	67.1	135	1.06	20	
1,3,5-Trimethylbenzene	22	1.0	20.00	0.5020	105	75.9	130	2.22	20	
Surr: 4-Bromofluorobenzene	24		20.00		120	82.9	139	0	0	

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R19246			RunNo: 19246					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557139		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	22		20.00		110	82.9	139			

Sample ID	100NG BTEX LCS	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID: R19246			RunNo: 19246					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557140		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	92.3	71.1	128			
Benzene	21	1.0	20.00	0	106	80	120			
Toluene	21	1.0	20.00	0	105	80	120			
Ethylbenzene	21	1.0	20.00	0	104	80	120			
Xylenes, Total	64	2.0	60.00	0	107	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	105	80	120			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	109	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		121	82.9	139			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	mb-13597		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554254		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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	mb-13597	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	13597	RunNo:	19174					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554254	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	20								
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		62.8	12.1	85.8			
Surr: Phenol-d5	110		200.0		54.1	17.7	65.8			
Surr: 2,4,6-Tribromophenol	180		200.0		88.5	26	138			
Surr: Nitrobenzene-d5	98		100.0		98.1	47.5	119			
Surr: 2-Fluorobiphenyl	97		100.0		96.7	48.1	106			
Surr: 4-Terphenyl-d14	96		100.0		96.2	44	113			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	lcs-13597		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554255		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.1	50.3	109			
4-Chloro-3-methylphenol	140	10	200.0	0	67.6	51.2	113			
2-Chlorophenol	120	10	200.0	0	57.6	48.5	104			
1,4-Dichlorobenzene	69	10	100.0	0	68.8	39.5	106			
2,4-Dinitrotoluene	69	10	100.0	0	68.7	45.4	107			
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.1	50.4	119			
4-Nitrophenol	70	10	200.0	0	35.1	15.5	62.2			
Pentachlorophenol	71	20	200.0	0	35.5	23.5	93.5			
Phenol	97	10	200.0	0	48.7	26.8	65.6			
Pyrene	81	10	100.0	0	81.4	54.4	108			
1,2,4-Trichlorobenzene	67	10	100.0	0	66.7	39.9	106			
Surr: 2-Fluorophenol	88		200.0		43.8	12.1	85.8			
Surr: Phenol-d5	110		200.0		53.2	17.7	65.8			
Surr: 2,4,6-Tribromophenol	93		200.0		46.5	26	138			
Surr: Nitrobenzene-d5	75		100.0		74.8	47.5	119			
Surr: 2-Fluorobiphenyl	72		100.0		72.0	48.1	106			
Surr: 4-Terphenyl-d14	75		100.0		75.4	44	113			

Sample ID	lcsd-13597		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554256		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	50.3	109	10.4	27.2	
4-Chloro-3-methylphenol	140	10	200.0	0	68.5	51.2	113	1.34	25.9	
2-Chlorophenol	100	10	200.0	0	51.9	48.5	104	10.5	22.5	
1,4-Dichlorobenzene	60	10	100.0	0	60.2	39.5	106	13.3	24.6	
2,4-Dinitrotoluene	65	10	100.0	0	65.2	45.4	107	5.17	25.3	
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.6	50.4	119	17.6	23.6	
4-Nitrophenol	73	10	200.0	0	36.3	15.5	62.2	3.33	34.7	
Pentachlorophenol	66	20	200.0	0	33.1	23.5	93.5	7.12	32.8	
Phenol	93	10	200.0	0	46.3	26.8	65.6	5.03	25.5	
Pyrene	91	10	100.0	0	91.4	54.4	108	11.6	31.4	
1,2,4-Trichlorobenzene	58	10	100.0	0	58.0	39.9	106	13.9	25.9	
Surr: 2-Fluorophenol	84		200.0		41.9	12.1	85.8	0	0	
Surr: Phenol-d5	99		200.0		49.7	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	82		200.0		40.8	26	138	0	0	
Surr: Nitrobenzene-d5	66		100.0		65.8	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	64		100.0		63.7	48.1	106	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406361

27-Jun-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	lcsd-13597	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	13597	RunNo:	19174					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554256	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	74		100.0		73.9	44	113	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 greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1406361

RcptNo: 1

Received by/date: mg 06/06/14

Logged By: **Michelle Garcia** 6/6/2014 3:50:00 PM *Michelle Garcia*

Completed By: **Michelle Garcia** 6/9/2014 8:30:07 AM *Michelle Garcia*

Reviewed By: *[Signature]* 06/09/14

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☒ *mg 06/09*
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 ☒ *CS 06/09/14*
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: 13 *CS 06/09/14*

(<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: [Signature] Date: [Signature]

By Whom: [Signature] Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: [Signature]

Client Instructions: [Signature]

17. Additional remarks: FOR CATION ANALYSIS: POURED OFF FROM -003D(10P2) FOR FRACTION -003E

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

+ ADDED 1mL HNO3 FOR ACCEPTABLE pH. HELD IN LOGIN FOR 24 HOURS AFTER PRESERVATION

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: 2014 2nd Quarter

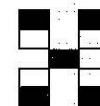
Project #: NAPIS/LDU

Project Manager: C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8021B + MTBE	8015B	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major CATIONS/ANIONS	Air Bubbles (Y or N)
6/5/14	932	H2O	NAPIS-1			-001	X	X	X	X	X	X	
6/5/14	1146	H2O	NAPIS-2			-002	X	X	X	X	X	X	
6/5/14	840	H2O	KA-3			-003	X	X	X			X	
6/5/14	828	H2O	NAPIS-3			-004	X	X	X	X	X	X	
6/3/14	1556	H2O	WEST LDU			-005	X	X		X	X		
6/3/14	1540	H2O	EAST LDU			-006	X	X		X	X		
		H2O	Oil Sump LDU				X	X		X	X		
6/5/14	1240	H2O	FD-GROUP1-6/5/14			-007	X	X	X	X	X		
6/5/14		H2O	BD-NAPIS-6/5/14			-008			X				
		H2O	BD										
			TB			-009	X	X					
			A 06/09/14										
Date: 6/6/14	Time: 1550	Relinquished by: Pax Landers	Received by: Miller	Date: 6/6/14	Time: 1550	Remarks:							
Date:	Time:	Relinquished by:	Received by:	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 noted 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

October 06, 2014

Cheryl Johnson

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

RE: 2014 Annual GW

OrderNo.: 1409809

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/16/2014 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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 Annual GW

Collection Date: 9/15/2014 3:45:00 PM

Lab ID: 1409809-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/19/2014 5:42:47 PM	15341
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/19/2014 5:42:47 PM	15341
Surr: DNOP	105	59-141		%REC	1	9/19/2014 5:42:47 PM	15341
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	0.52	0.050		mg/L	1	9/19/2014 12:58:45 AM	R21299
Surr: BFB	91.7	70.9-130		%REC	1	9/19/2014 12:58:45 AM	R21299
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.30	0.10		mg/L	1	9/17/2014 10:39:57 PM	R21283
Chloride	160	10		mg/L	20	9/17/2014 10:52:22 PM	R21283
Bromide	0.77	0.10		mg/L	1	9/17/2014 10:39:57 PM	R21283
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/17/2014 10:39:57 PM	R21283
Sulfate	73	10		mg/L	20	9/17/2014 10:52:22 PM	R21283
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/18/2014 7:38:35 PM	R21321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.061	0.0020		mg/L	1	9/18/2014 2:13:41 PM	R21290
Cadmium	ND	0.0020		mg/L	1	9/18/2014 2:13:41 PM	R21290
Calcium	57	1.0		mg/L	1	9/18/2014 2:13:41 PM	R21290
Chromium	ND	0.0060		mg/L	1	9/18/2014 2:13:41 PM	R21290
Copper	ND	0.0060		mg/L	1	9/18/2014 2:13:41 PM	R21290
Iron	0.18	0.020		mg/L	1	9/19/2014 5:59:10 PM	R21336
Magnesium	12	1.0		mg/L	1	9/18/2014 2:13:41 PM	R21290
Manganese	0.26	0.0020	*	mg/L	1	9/19/2014 5:59:10 PM	R21336
Potassium	1.2	1.0		mg/L	1	9/18/2014 2:13:41 PM	R21290
Silver	ND	0.0050		mg/L	1	9/19/2014 5:59:10 PM	R21336
Sodium	380	10		mg/L	10	9/19/2014 6:00:58 PM	R21336
Zinc	ND	0.010		mg/L	1	9/19/2014 5:59:10 PM	R21336
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.058	0.0020		mg/L	1	9/19/2014 11:50:57 AM	15380
Cadmium	ND	0.0020		mg/L	1	9/19/2014 11:50:57 AM	15380
Chromium	ND	0.0060		mg/L	1	9/19/2014 11:50:57 AM	15380
Copper	ND	0.0060		mg/L	1	9/19/2014 11:50:57 AM	15380
Iron	0.20	0.020		mg/L	1	9/19/2014 11:50:57 AM	15380
Manganese	0.26	0.0020	*	mg/L	1	9/19/2014 11:50:57 AM	15380
Silver	ND	0.0050		mg/L	1	9/19/2014 11:50:57 AM	15380
Zinc	ND	0.010		mg/L	1	9/19/2014 11:50:57 AM	15380
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/29/2014 5:24:08 PM	R21527

Refer to the QC Summary report and 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 40
	E	Value 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 greater than 2.	
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 Annual GW

Collection Date: 9/15/2014 3:45:00 PM

Lab ID: 1409809-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	9/26/2014 12:16:19 PM	R21493
Selenium	ND	0.010		mg/L	10	9/29/2014 5:24:08 PM	R21527
Uranium	0.054	0.010	*	mg/L	10	9/29/2014 5:24:08 PM	R21527
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/29/2014 1:29:56 PM	15380
Lead	ND	0.0010		mg/L	1	9/23/2014 4:36:50 PM	15380
Selenium	ND	0.010		mg/L	10	9/29/2014 1:29:56 PM	15380
Uranium	0.053	0.010	*	mg/L	10	9/29/2014 1:29:56 PM	15380
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	9/24/2014 11:14:21 AM	15450
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Acenaphthylene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Aniline	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Anthracene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Azobenzene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Benz(a)anthracene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Benzoic acid	ND	20		µg/L	1	9/19/2014 3:30:22 AM	15359
Benzyl alcohol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Carbazole	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
4-Chloroaniline	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2-Chlorophenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Chrysene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Di-n-octyl phthalate	ND	20		µg/L	1	9/19/2014 3:30:22 AM	15359

Refer to the QC Summary report and 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 40
	E	Value 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 greater than 2.	
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 Annual GW

Collection Date: 9/15/2014 3:45:00 PM

Lab ID: 1409809-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Dibenzofuran	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Diethyl phthalate	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Dimethyl phthalate	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2014 3:30:22 AM	15359
2,4-Dimethylphenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2014 3:30:22 AM	15359
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2014 3:30:22 AM	15359
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Fluoranthene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Fluorene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Hexachlorobenzene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Hexachloroethane	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Isophorone	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
1-Methylnaphthalene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2-Methylnaphthalene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2-Methylphenol	ND	20		µg/L	1	9/19/2014 3:30:22 AM	15359
3+4-Methylphenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Naphthalene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
3-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
4-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Nitrobenzene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2-Nitrophenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
4-Nitrophenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Pentachlorophenol	ND	20		µg/L	1	9/19/2014 3:30:22 AM	15359
Phenanthrene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Phenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359

Refer to the QC Summary report and 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 40
	E Value 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 greater than 2.	
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 Annual GW

Collection Date: 9/15/2014 3:45:00 PM

Lab ID: 1409809-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Pyridine	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2014 3:30:22 AM	15359
Surr: 2-Fluorophenol	65.0	12.1-85.8		%REC	1	9/19/2014 3:30:22 AM	15359
Surr: Phenol-d5	57.7	17.7-65.8		%REC	1	9/19/2014 3:30:22 AM	15359
Surr: 2,4,6-Tribromophenol	74.5	26-138		%REC	1	9/19/2014 3:30:22 AM	15359
Surr: Nitrobenzene-d5	83.4	47.5-119		%REC	1	9/19/2014 3:30:22 AM	15359
Surr: 2-Fluorobiphenyl	74.7	48.1-106		%REC	1	9/19/2014 3:30:22 AM	15359
Surr: 4-Terphenyl-d14	91.7	44-113		%REC	1	9/19/2014 3:30:22 AM	15359
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Toluene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Ethylbenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Methyl tert-butyl ether (MTBE)	2500	50		µg/L	50	9/24/2014 12:33:42 AM	R21389
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Naphthalene	ND	10		µg/L	5	9/24/2014 1:01:35 AM	R21389
1-Methylnaphthalene	ND	20		µg/L	5	9/24/2014 1:01:35 AM	R21389
2-Methylnaphthalene	ND	20		µg/L	5	9/24/2014 1:01:35 AM	R21389
Acetone	ND	50		µg/L	5	9/24/2014 1:01:35 AM	R21389
Bromobenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Bromodichloromethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Bromoform	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Bromomethane	ND	15		µg/L	5	9/24/2014 1:01:35 AM	R21389
2-Butanone	ND	50		µg/L	5	9/24/2014 1:01:35 AM	R21389
Carbon disulfide	ND	50		µg/L	5	9/24/2014 1:01:35 AM	R21389
Carbon Tetrachloride	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Chlorobenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Chloroethane	ND	10		µg/L	5	9/24/2014 1:01:35 AM	R21389
Chloroform	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Chloromethane	ND	15		µg/L	5	9/24/2014 1:01:35 AM	R21389
2-Chlorotoluene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
4-Chlorotoluene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
cis-1,2-DCE	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 Annual GW

Collection Date: 9/15/2014 3:45:00 PM

Lab ID: 1409809-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	9/24/2014 1:01:35 AM	R21389
Dibromochloromethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Dibromomethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,2-Dichlorobenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,3-Dichlorobenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,4-Dichlorobenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Dichlorodifluoromethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,1-Dichloroethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,1-Dichloroethene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,2-Dichloropropane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,3-Dichloropropane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
2,2-Dichloropropane	ND	10		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,1-Dichloropropene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Hexachlorobutadiene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
2-Hexanone	ND	50		µg/L	5	9/24/2014 1:01:35 AM	R21389
Isopropylbenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
4-Isopropyltoluene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
4-Methyl-2-pentanone	ND	50		µg/L	5	9/24/2014 1:01:35 AM	R21389
Methylene Chloride	ND	15		µg/L	5	9/24/2014 1:01:35 AM	R21389
n-Butylbenzene	ND	15		µg/L	5	9/24/2014 1:01:35 AM	R21389
n-Propylbenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
sec-Butylbenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Styrene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
tert-Butylbenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	9/24/2014 1:01:35 AM	R21389
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
trans-1,2-DCE	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,1,1-Trichloroethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,1,2-Trichloroethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Trichloroethene (TCE)	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Trichlorofluoromethane	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
1,2,3-Trichloropropane	ND	10		µg/L	5	9/24/2014 1:01:35 AM	R21389
Vinyl chloride	ND	5.0		µg/L	5	9/24/2014 1:01:35 AM	R21389
Xylenes, Total	ND	7.5		µg/L	5	9/24/2014 1:01:35 AM	R21389
Surr: 1,2-Dichloroethane-d4	89.3	70-130		%REC	5	9/24/2014 1:01:35 AM	R21389

Refer to the QC Summary report and 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 40
	E	Value 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 greater than 2.	
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 Annual GW

Collection Date: 9/15/2014 3:45:00 PM

Lab ID: 1409809-001

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	90.4	70-130		%REC	5	9/24/2014 1:01:35 AM	R21389
Surr: Dibromofluoromethane	101	70-130		%REC	5	9/24/2014 1:01:35 AM	R21389
Surr: Toluene-d8	94.0	70-130		%REC	5	9/24/2014 1:01:35 AM	R21389

Refer to the QC Summary report and 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 40
	E	Value 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 greater than 2.	
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 Annual GW

Collection Date: 9/15/2014 4:45:00 PM

Lab ID: 1409809-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	4.5	1.0		mg/L	1	9/19/2014 6:04:10 PM	15341
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/19/2014 6:04:10 PM	15341
Surr: DNOP	107	59-141		%REC	1	9/19/2014 6:04:10 PM	15341
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	8.2	0.50		mg/L	10	9/19/2014 1:28:51 AM	R21299
Surr: BFB	102	70.9-130		%REC	10	9/19/2014 1:28:51 AM	R21299
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.21	0.10		mg/L	1	9/17/2014 11:04:46 PM	R21283
Chloride	330	10		mg/L	20	9/17/2014 11:17:10 PM	R21283
Bromide	1.5	0.10		mg/L	1	9/17/2014 11:04:46 PM	R21283
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/17/2014 11:04:46 PM	R21283
Sulfate	2.6	0.50		mg/L	1	9/17/2014 11:04:46 PM	R21283
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/18/2014 7:50:59 PM	R21321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.8	0.020		mg/L	10	9/19/2014 6:04:25 PM	R21336
Cadmium	ND	0.0020		mg/L	1	9/18/2014 2:15:37 PM	R21290
Calcium	94	1.0		mg/L	1	9/18/2014 2:15:37 PM	R21290
Chromium	ND	0.0060		mg/L	1	9/18/2014 2:15:37 PM	R21290
Copper	ND	0.0060		mg/L	1	9/18/2014 2:15:37 PM	R21290
Iron	4.5	0.20	*	mg/L	10	9/19/2014 6:04:25 PM	R21336
Magnesium	25	1.0		mg/L	1	9/18/2014 2:15:37 PM	R21290
Manganese	2.2	0.020	*	mg/L	10	9/19/2014 6:04:25 PM	R21336
Potassium	ND	1.0		mg/L	1	9/18/2014 2:15:37 PM	R21290
Silver	ND	0.0050		mg/L	1	9/19/2014 6:02:49 PM	R21336
Sodium	400	10		mg/L	10	9/19/2014 6:04:25 PM	R21336
Zinc	ND	0.010		mg/L	1	9/19/2014 6:02:49 PM	R21336
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.9	0.020		mg/L	10	9/19/2014 12:00:30 PM	15380
Cadmium	ND	0.0020		mg/L	1	9/19/2014 11:52:55 AM	15380
Chromium	ND	0.0060		mg/L	1	9/19/2014 11:52:55 AM	15380
Copper	ND	0.0060		mg/L	1	9/19/2014 11:52:55 AM	15380
Iron	4.7	0.20	*	mg/L	10	9/19/2014 12:00:30 PM	15380
Manganese	2.3	0.020	*	mg/L	10	9/19/2014 12:00:30 PM	15380
Silver	ND	0.0050		mg/L	1	9/19/2014 11:52:55 AM	15380
Zinc	ND	0.010		mg/L	1	9/19/2014 11:52:55 AM	15380
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	9/29/2014 5:39:41 PM	R21527

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 Annual GW

Collection Date: 9/15/2014 4:45:00 PM

Lab ID: 1409809-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	9/26/2014 12:25:43 PM	R21493
Selenium	0.017	0.010		mg/L	10	9/29/2014 5:39:41 PM	R21527
Uranium	0.0071	0.0010		mg/L	1	9/26/2014 12:25:43 PM	R21493
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.014	0.010	*	mg/L	10	9/29/2014 1:33:03 PM	15380
Lead	ND	0.0010		mg/L	1	9/23/2014 4:39:57 PM	15380
Selenium	0.018	0.010		mg/L	10	9/29/2014 1:33:03 PM	15380
Uranium	0.0079	0.0010		mg/L	1	9/23/2014 4:39:57 PM	15380
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	9/24/2014 11:16:11 AM	15450
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Acenaphthylene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Aniline	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Anthracene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Azobenzene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Benz(a)anthracene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Benzoic acid	ND	20		µg/L	1	9/19/2014 3:59:13 AM	15359
Benzyl alcohol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Carbazole	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
4-Chloroaniline	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2-Chlorophenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Chrysene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Di-n-octyl phthalate	ND	20		µg/L	1	9/19/2014 3:59:13 AM	15359

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 Annual GW

Collection Date: 9/15/2014 4:45:00 PM

Lab ID: 1409809-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Dibenzofuran	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Diethyl phthalate	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Dimethyl phthalate	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2014 3:59:13 AM	15359
2,4-Dimethylphenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2014 3:59:13 AM	15359
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2014 3:59:13 AM	15359
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Fluoranthene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Fluorene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Hexachlorobenzene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Hexachloroethane	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Isophorone	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
1-Methylnaphthalene	16	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2-Methylnaphthalene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2-Methylphenol	ND	20		µg/L	1	9/19/2014 3:59:13 AM	15359
3+4-Methylphenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Naphthalene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
3-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
4-Nitroaniline	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Nitrobenzene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2-Nitrophenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
4-Nitrophenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Pentachlorophenol	ND	20		µg/L	1	9/19/2014 3:59:13 AM	15359
Phenanthrene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Phenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359

Refer to the QC Summary report and 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 40
	E	Value 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 greater than 2.	
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 Annual GW

Collection Date: 9/15/2014 4:45:00 PM

Lab ID: 1409809-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Pyridine	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2014 3:59:13 AM	15359
Surr: 2-Fluorophenol	49.0	12.1-85.8		%REC	1	9/19/2014 3:59:13 AM	15359
Surr: Phenol-d5	50.0	17.7-65.8		%REC	1	9/19/2014 3:59:13 AM	15359
Surr: 2,4,6-Tribromophenol	59.2	26-138		%REC	1	9/19/2014 3:59:13 AM	15359
Surr: Nitrobenzene-d5	69.7	47.5-119		%REC	1	9/19/2014 3:59:13 AM	15359
Surr: 2-Fluorobiphenyl	64.1	48.1-106		%REC	1	9/19/2014 3:59:13 AM	15359
Surr: 4-Terphenyl-d14	67.3	44-113		%REC	1	9/19/2014 3:59:13 AM	15359
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	3800	200		µg/L	200	9/24/2014 1:57:27 AM	R21389
Toluene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Ethylbenzene	160	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Methyl tert-butyl ether (MTBE)	820	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2,4-Trimethylbenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,3,5-Trimethylbenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Naphthalene	ND	40		µg/L	20	9/24/2014 2:25:17 AM	R21389
1-Methylnaphthalene	ND	80		µg/L	20	9/24/2014 2:25:17 AM	R21389
2-Methylnaphthalene	ND	80		µg/L	20	9/24/2014 2:25:17 AM	R21389
Acetone	ND	200		µg/L	20	9/24/2014 2:25:17 AM	R21389
Bromobenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Bromodichloromethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Bromoform	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Bromomethane	ND	60		µg/L	20	9/24/2014 2:25:17 AM	R21389
2-Butanone	ND	200		µg/L	20	9/24/2014 2:25:17 AM	R21389
Carbon disulfide	ND	200		µg/L	20	9/24/2014 2:25:17 AM	R21389
Carbon Tetrachloride	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Chlorobenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Chloroethane	ND	40		µg/L	20	9/24/2014 2:25:17 AM	R21389
Chloroform	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Chloromethane	ND	60		µg/L	20	9/24/2014 2:25:17 AM	R21389
2-Chlorotoluene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
4-Chlorotoluene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
cis-1,2-DCE	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
cis-1,3-Dichloropropene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 Annual GW

Collection Date: 9/15/2014 4:45:00 PM

Lab ID: 1409809-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	9/24/2014 2:25:17 AM	R21389
Dibromochloromethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Dibromomethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2-Dichlorobenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,3-Dichlorobenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,4-Dichlorobenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Dichlorodifluoromethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,1-Dichloroethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,1-Dichloroethene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2-Dichloropropane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,3-Dichloropropane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
2,2-Dichloropropane	ND	40		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,1-Dichloropropene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Hexachlorobutadiene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
2-Hexanone	ND	200		µg/L	20	9/24/2014 2:25:17 AM	R21389
Isopropylbenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
4-Isopropyltoluene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
4-Methyl-2-pentanone	ND	200		µg/L	20	9/24/2014 2:25:17 AM	R21389
Methylene Chloride	ND	60		µg/L	20	9/24/2014 2:25:17 AM	R21389
n-Butylbenzene	ND	60		µg/L	20	9/24/2014 2:25:17 AM	R21389
n-Propylbenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
sec-Butylbenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Styrene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
tert-Butylbenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	9/24/2014 2:25:17 AM	R21389
Tetrachloroethene (PCE)	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
trans-1,2-DCE	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
trans-1,3-Dichloropropene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2,3-Trichlorobenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2,4-Trichlorobenzene	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,1,1-Trichloroethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,1,2-Trichloroethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Trichloroethene (TCE)	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Trichlorofluoromethane	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
1,2,3-Trichloropropane	ND	40		µg/L	20	9/24/2014 2:25:17 AM	R21389
Vinyl chloride	ND	20		µg/L	20	9/24/2014 2:25:17 AM	R21389
Xylenes, Total	ND	30		µg/L	20	9/24/2014 2:25:17 AM	R21389
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	20	9/24/2014 2:25:17 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 Annual GW

Collection Date: 9/15/2014 4:45:00 PM

Lab ID: 1409809-002

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	88.4	70-130		%REC	20	9/24/2014 2:25:17 AM	R21389
Surr: Dibromofluoromethane	99.4	70-130		%REC	20	9/24/2014 2:25:17 AM	R21389
Surr: Toluene-d8	96.2	70-130		%REC	20	9/24/2014 2:25:17 AM	R21389

Refer to the QC Summary report and 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 12 of 40
	E	Value 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 greater than 2.	
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 Annual GW

Collection Date: 9/15/2014 6:35:00 PM

Lab ID: 1409809-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/19/2014 6:25:38 PM	15341
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/19/2014 6:25:38 PM	15341
Surr: DNOP	116	59-141		%REC	1	9/19/2014 6:25:38 PM	15341
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/19/2014 1:58:56 AM	R21299
Surr: BFB	92.9	70.9-130		%REC	1	9/19/2014 1:58:56 AM	R21299
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.22	0.10		mg/L	1	9/17/2014 11:54:25 PM	R21283
Chloride	28	10		mg/L	20	9/18/2014 12:06:50 AM	R21283
Bromide	0.39	0.10		mg/L	1	9/17/2014 11:54:25 PM	R21283
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/17/2014 11:54:25 PM	R21283
Sulfate	150	10		mg/L	20	9/18/2014 12:06:50 AM	R21283
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/18/2014 8:03:24 PM	R21321
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	9/19/2014 6:07:59 PM	R21336
Cadmium	ND	0.0020		mg/L	1	9/18/2014 2:27:18 PM	R21290
Calcium	8.8	1.0		mg/L	1	9/18/2014 2:27:18 PM	R21290
Chromium	ND	0.0060		mg/L	1	9/18/2014 2:27:18 PM	R21290
Copper	ND	0.0060		mg/L	1	9/18/2014 2:27:18 PM	R21290
Iron	ND	0.020		mg/L	1	9/19/2014 6:07:59 PM	R21336
Magnesium	1.3	1.0		mg/L	1	9/18/2014 2:27:18 PM	R21290
Manganese	0.018	0.0020		mg/L	1	9/19/2014 6:07:59 PM	R21336
Potassium	1.9	1.0		mg/L	1	9/18/2014 2:27:18 PM	R21290
Silver	ND	0.0050		mg/L	1	9/19/2014 6:07:59 PM	R21336
Sodium	300	10		mg/L	10	9/19/2014 6:10:01 PM	R21336
Zinc	ND	0.010		mg/L	1	9/19/2014 6:07:59 PM	R21336
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	9/19/2014 11:54:40 AM	15380
Cadmium	ND	0.0020		mg/L	1	9/19/2014 11:54:40 AM	15380
Chromium	ND	0.0060		mg/L	1	9/19/2014 11:54:40 AM	15380
Copper	ND	0.0060		mg/L	1	9/19/2014 11:54:40 AM	15380
Iron	ND	0.020		mg/L	1	9/19/2014 11:54:40 AM	15380
Manganese	0.017	0.0020		mg/L	1	9/19/2014 11:54:40 AM	15380
Silver	ND	0.0050		mg/L	1	9/19/2014 11:54:40 AM	15380
Zinc	ND	0.010		mg/L	1	9/19/2014 11:54:40 AM	15380
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0015	0.0010		mg/L	1	9/26/2014 12:28:49 PM	R21493

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 Annual GW

Collection Date: 9/15/2014 6:35:00 PM

Lab ID: 1409809-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	9/26/2014 12:28:49 PM	R21493
Selenium	0.0026	0.0010		mg/L	1	9/26/2014 12:28:49 PM	R21493
Uranium	0.017	0.0010		mg/L	1	9/26/2014 12:28:49 PM	R21493
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	9/23/2014 4:49:19 PM	15380
Lead	ND	0.0010		mg/L	1	9/23/2014 4:49:19 PM	15380
Selenium	0.0018	0.0010		mg/L	1	9/23/2014 4:49:19 PM	15380
Uranium	0.018	0.0010		mg/L	1	9/23/2014 4:49:19 PM	15380
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	9/24/2014 11:21:45 AM	15450
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Acenaphthylene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Aniline	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Anthracene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Azobenzene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Benz(a)anthracene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Benzoic acid	ND	20		µg/L	1	9/19/2014 4:27:51 AM	15359
Benzyl alcohol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Carbazole	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
4-Chloroaniline	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2-Chlorophenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Chrysene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Di-n-octyl phthalate	ND	20		µg/L	1	9/19/2014 4:27:51 AM	15359

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 Annual GW

Collection Date: 9/15/2014 6:35:00 PM

Lab ID: 1409809-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Dibenzofuran	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Diethyl phthalate	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Dimethyl phthalate	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2014 4:27:51 AM	15359
2,4-Dimethylphenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2014 4:27:51 AM	15359
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2014 4:27:51 AM	15359
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Fluoranthene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Fluorene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Hexachlorobenzene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Hexachloroethane	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Isophorone	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
1-Methylnaphthalene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2-Methylnaphthalene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2-Methylphenol	ND	20		µg/L	1	9/19/2014 4:27:51 AM	15359
3+4-Methylphenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Naphthalene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2-Nitroaniline	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
3-Nitroaniline	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
4-Nitroaniline	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Nitrobenzene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2-Nitrophenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
4-Nitrophenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Pentachlorophenol	ND	20		µg/L	1	9/19/2014 4:27:51 AM	15359
Phenanthrene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Phenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359

Refer to the QC Summary report and 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 greater than 2.
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 Annual GW

Collection Date: 9/15/2014 6:35:00 PM

Lab ID: 1409809-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Pyridine	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2014 4:27:51 AM	15359
Surr: 2-Fluorophenol	66.9	12.1-85.8		%REC	1	9/19/2014 4:27:51 AM	15359
Surr: Phenol-d5	59.8	17.7-65.8		%REC	1	9/19/2014 4:27:51 AM	15359
Surr: 2,4,6-Tribromophenol	77.3	26-138		%REC	1	9/19/2014 4:27:51 AM	15359
Surr: Nitrobenzene-d5	86.5	47.5-119		%REC	1	9/19/2014 4:27:51 AM	15359
Surr: 2-Fluorobiphenyl	75.3	48.1-106		%REC	1	9/19/2014 4:27:51 AM	15359
Surr: 4-Terphenyl-d14	86.2	44-113		%REC	1	9/19/2014 4:27:51 AM	15359
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Toluene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Ethylbenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Methyl tert-butyl ether (MTBE)	23	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Naphthalene	ND	2.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1-Methylnaphthalene	ND	4.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
2-Methylnaphthalene	ND	4.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Acetone	ND	10		µg/L	1	9/24/2014 3:21:10 AM	R21389
Bromobenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Bromodichloromethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Bromoform	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Bromomethane	ND	3.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
2-Butanone	ND	10		µg/L	1	9/24/2014 3:21:10 AM	R21389
Carbon disulfide	ND	10		µg/L	1	9/24/2014 3:21:10 AM	R21389
Carbon Tetrachloride	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Chlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Chloroethane	ND	2.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Chloroform	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Chloromethane	ND	3.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
2-Chlorotoluene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
4-Chlorotoluene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
cis-1,2-DCE	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 Annual GW

Collection Date: 9/15/2014 6:35:00 PM

Lab ID: 1409809-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Dibromochloromethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Dibromomethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,1-Dichloroethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,1-Dichloroethene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2-Dichloropropane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,3-Dichloropropane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
2,2-Dichloropropane	ND	2.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,1-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Hexachlorobutadiene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
2-Hexanone	ND	10		µg/L	1	9/24/2014 3:21:10 AM	R21389
Isopropylbenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
4-Isopropyltoluene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
4-Methyl-2-pentanone	ND	10		µg/L	1	9/24/2014 3:21:10 AM	R21389
Methylene Chloride	ND	3.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
n-Butylbenzene	ND	3.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
n-Propylbenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
sec-Butylbenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Styrene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
tert-Butylbenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
trans-1,2-DCE	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Trichlorofluoromethane	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Vinyl chloride	ND	1.0		µg/L	1	9/24/2014 3:21:10 AM	R21389
Xylenes, Total	ND	1.5		µg/L	1	9/24/2014 3:21:10 AM	R21389
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%REC	1	9/24/2014 3:21:10 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 Annual GW

Collection Date: 9/15/2014 6:35:00 PM

Lab ID: 1409809-003

Matrix: AQUEOUS

Received Date: 9/16/2014 5:03:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	1	9/24/2014 3:21:10 AM	R21389
Surr: Dibromofluoromethane	102	70-130		%REC	1	9/24/2014 3:21:10 AM	R21389
Surr: Toluene-d8	92.6	70-130		%REC	1	9/24/2014 3:21:10 AM	R21389

Refer to the QC Summary report and 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 18 of 40
	E	Value 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 greater than 2.	
	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 1409809

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 Annual GW

Collection Date:

Lab ID: 1409809-004

Matrix: TRIP BLANK

Received Date: 9/16/2014 5:03:00 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	9/19/2014 2:28:58 AM	R21299
Surr: BFB	92.3	70.9-130		%REC	1	9/19/2014 2:28:58 AM	R21299
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Toluene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Ethylbenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Naphthalene	ND	2.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1-Methylnaphthalene	ND	4.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
2-Methylnaphthalene	ND	4.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Acetone	ND	10		µg/L	1	9/24/2014 3:49:00 AM	R21389
Bromobenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Bromodichloromethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Bromoform	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Bromomethane	ND	3.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
2-Butanone	ND	10		µg/L	1	9/24/2014 3:49:00 AM	R21389
Carbon disulfide	ND	10		µg/L	1	9/24/2014 3:49:00 AM	R21389
Carbon Tetrachloride	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Chlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Chloroethane	ND	2.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Chloroform	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Chloromethane	ND	3.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
2-Chlorotoluene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
4-Chlorotoluene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
cis-1,2-DCE	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Dibromochloromethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Dibromomethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,1-Dichloroethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,1-Dichloroethene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2014 Annual GW

Collection Date:

Lab ID: 1409809-004

Matrix: TRIP BLANK

Received Date: 9/16/2014 5:03:00 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	9/24/2014 3:49:00 AM	R21389
1,3-Dichloropropane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
2,2-Dichloropropane	ND	2.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,1-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Hexachlorobutadiene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
2-Hexanone	ND	10		µg/L	1	9/24/2014 3:49:00 AM	R21389
Isopropylbenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
4-Isopropyltoluene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
4-Methyl-2-pentanone	ND	10		µg/L	1	9/24/2014 3:49:00 AM	R21389
Methylene Chloride	ND	3.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
n-Butylbenzene	ND	3.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
n-Propylbenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
sec-Butylbenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Styrene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
tert-Butylbenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
trans-1,2-DCE	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Trichlorofluoromethane	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Vinyl chloride	ND	1.0		µg/L	1	9/24/2014 3:49:00 AM	R21389
Xylenes, Total	ND	1.5		µg/L	1	9/24/2014 3:49:00 AM	R21389
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	9/24/2014 3:49:00 AM	R21389
Surr: 4-Bromofluorobenzene	92.0	70-130		%REC	1	9/24/2014 3:49:00 AM	R21389
Surr: Dibromofluoromethane	97.1	70-130		%REC	1	9/24/2014 3:49:00 AM	R21389
Surr: Toluene-d8	93.1	70-130		%REC	1	9/24/2014 3:49:00 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-Group 2-9/15/14

Project: 2014 Annual GW

Collection Date: 9/15/2014 2:10:00 PM

Lab ID: 1409809-005

Matrix: TRIP BLANK

Received Date: 9/16/2014 5:03:00 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	9/19/2014 2:59:06 AM	R21299
Surr: BFB	93.6	70.9-130		%REC	1	9/19/2014 2:59:06 AM	R21299
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Toluene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Ethylbenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Naphthalene	ND	2.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1-Methylnaphthalene	ND	4.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
2-Methylnaphthalene	ND	4.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Acetone	ND	10		µg/L	1	9/24/2014 4:16:55 AM	R21389
Bromobenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Bromodichloromethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Bromoform	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Bromomethane	ND	3.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
2-Butanone	ND	10		µg/L	1	9/24/2014 4:16:55 AM	R21389
Carbon disulfide	ND	10		µg/L	1	9/24/2014 4:16:55 AM	R21389
Carbon Tetrachloride	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Chlorobenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Chloroethane	ND	2.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Chloroform	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Chloromethane	ND	3.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
2-Chlorotoluene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
4-Chlorotoluene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
cis-1,2-DCE	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Dibromochloromethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Dibromomethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,1-Dichloroethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,1-Dichloroethene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389

Refer to the QC Summary report and 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 greater than 2.
	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 **1409809**Date Reported: **10/6/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** FB-Group 2-9/15/14**Project:** 2014 Annual GW**Collection Date:** 9/15/2014 2:10:00 PM**Lab ID:** 1409809-005**Matrix:** TRIP BLANK**Received Date:** 9/16/2014 5:03:00 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	9/24/2014 4:16:55 AM	R21389
1,3-Dichloropropane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
2,2-Dichloropropane	ND	2.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,1-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Hexachlorobutadiene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
2-Hexanone	ND	10		µg/L	1	9/24/2014 4:16:55 AM	R21389
Isopropylbenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
4-Isopropyltoluene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
4-Methyl-2-pentanone	ND	10		µg/L	1	9/24/2014 4:16:55 AM	R21389
Methylene Chloride	ND	3.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
n-Butylbenzene	ND	3.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
n-Propylbenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
sec-Butylbenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Styrene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
tert-Butylbenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
trans-1,2-DCE	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Trichlorofluoromethane	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Vinyl chloride	ND	1.0		µg/L	1	9/24/2014 4:16:55 AM	R21389
Xylenes, Total	ND	1.5		µg/L	1	9/24/2014 4:16:55 AM	R21389
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	9/24/2014 4:16:55 AM	R21389
Surr: 4-Bromofluorobenzene	86.6	70-130		%REC	1	9/24/2014 4:16:55 AM	R21389
Surr: Dibromofluoromethane	101	70-130		%REC	1	9/24/2014 4:16:55 AM	R21389
Surr: Toluene-d8	95.6	70-130		%REC	1	9/24/2014 4:16:55 AM	R21389

Refer to the QC Summary report and 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 22 of 40
	E	Value 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 greater than 2.	
	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#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R21290			RunNo: 21290					
Prep Date:		Analysis Date: 9/18/2014			SeqNo: 621146		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								
Potassium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21290		RunNo: 21290					
Prep Date:			Analysis Date: 9/18/2014		SeqNo: 621147		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	99.0	85	115			
Calcium	49	1.0	50.00	0	97.2	85	115			
Chromium	0.48	0.0060	0.5000	0	96.8	85	115			
Copper	0.49	0.0060	0.5000	0	97.1	85	115			
Magnesium	49	1.0	50.00	0	97.8	85	115			
Potassium	48	1.0	50.00	0	96.0	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R21290			RunNo: 21290					
Prep Date:		Analysis Date: 9/18/2014			SeqNo: 621149		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								
Potassium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21290		RunNo: 21290					
Prep Date:			Analysis Date: 9/18/2014		SeqNo: 621150		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	96.7	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID LCS	SampType: LCS				TestCode: EPA Method 200.7: Dissolved Metals					
Client ID: LCSW	Batch ID: R21290				RunNo: 21290					
Prep Date:	Analysis Date: 9/18/2014				SeqNo: 621150		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115			
Calcium	48	1.0	50.00	0	96.8	85	115			
Chromium	0.48	0.0060	0.5000	0	96.4	85	115			
Copper	0.48	0.0060	0.5000	0	95.5	85	115			
Magnesium	49	1.0	50.00	0	97.7	85	115			
Potassium	48	1.0	50.00	0	96.3	85	115			

Sample ID LCS TEST	SampType: LCS				TestCode: EPA Method 200.7: Dissolved Metals					
Client ID: LCSW	Batch ID: R21290				RunNo: 21290					
Prep Date:	Analysis Date: 9/18/2014				SeqNo: 621170		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	0.49	0.0020	0.5000	0	98.6	85	115			
Calcium	50	1.0	50.00	0	99.9	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Magnesium	50	1.0	50.00	0	99.5	85	115			
Potassium	50	1.0	50.00	0	99.2	85	115			

Sample ID MB	SampType: MBLK				TestCode: EPA Method 200.7: Dissolved Metals					
Client ID: PBW	Batch ID: R21336				RunNo: 21336					
Prep Date:	Analysis Date: 9/19/2014				SeqNo: 622776		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Iron	ND	0.020								
Manganese	ND	0.0020								
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: R21336				RunNo: 21336					
Prep Date:	Analysis Date: 9/19/2014				SeqNo: 622777		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	91.9	85	115			
Iron	0.47	0.020	0.5000	0	93.2	85	115			
Manganese	0.45	0.0020	0.5000	0	89.7	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 greater than 2.
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#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21336		RunNo: 21336					
Prep Date:			Analysis Date: 9/19/2014		SeqNo: 622777		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	99.3	85	115			
Zinc	0.46	0.010	0.5000	0	91.8	85	115			

Sample ID	LCS Ag	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID: R21336			RunNo: 21336					
Prep Date:		Analysis Date: 9/19/2014			SeqNo: 622778		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	95.7	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R21336			RunNo: 21336					
Prep Date:		Analysis Date: 9/19/2014			SeqNo: 622779		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Iron	ND	0.020								
Manganese	ND	0.0020								
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: R21336			RunNo: 21336				
Prep Date:	Analysis Date: 9/19/2014			SeqNo: 622780		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	94.1	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.5	85	115			
Sodium	49	1.0	50.00	0	98.5	85	115			
Zinc	0.47	0.010	0.5000	0	93.7	85	115			

Sample ID	LCS Ag		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R21336			RunNo: 21336				
Prep Date:			Analysis Date: 9/19/2014			SeqNo: 622781		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	102	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 greater than 2.
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#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	LCS-15380		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 15380		RunNo: 21318					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 622068		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	97.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.7	85	115			
Chromium	0.48	0.0060	0.5000	0	96.8	85	115			
Copper	0.50	0.0060	0.5000	0	99.7	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.50	0.0020	0.5000	0	99.1	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	LCS AG-15380		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 15380		RunNo: 21318					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 622069		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	85	115			

Sample ID	MB-15380		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 15380		RunNo: 21318					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 622074		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								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21493		RunNo: 21493					
Prep Date:			Analysis Date: 9/26/2014		SeqNo: 628608		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	94.7	85	115			
Lead	0.024	0.0010	0.02500	0	94.4	85	115			
Selenium	0.022	0.0010	0.02500	0	90.0	85	115			
Uranium	0.024	0.0010	0.02500	0	95.1	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21493		RunNo: 21493					
Prep Date:			Analysis Date: 9/26/2014		SeqNo: 628609		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	92.9	85	115			
Lead	0.023	0.0010	0.02500	0	92.6	85	115			
Selenium	0.023	0.0010	0.02500	0	92.4	85	115			
Uranium	0.023	0.0010	0.02500	0	91.6	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R21493			RunNo: 21493					
Prep Date:		Analysis Date: 9/26/2014			SeqNo: 628610		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R21493			RunNo: 21493					
Prep Date:		Analysis Date: 9/26/2014			SeqNo: 628611		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21527		RunNo: 21527					
Prep Date:			Analysis Date: 9/29/2014		SeqNo: 629894		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
E Value 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 greater than 2.
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#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21527		RunNo: 21527					
Prep Date:			Analysis Date: 9/29/2014		SeqNo: 629894		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	98.5	85	115			
Selenium	0.024	0.0010	0.02500	0	94.6	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R21527		RunNo: 21527					
Prep Date:			Analysis Date: 9/29/2014		SeqNo: 629895		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			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R21527			RunNo: 21527					
Prep Date:		Analysis Date: 9/29/2014			SeqNo: 629896		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	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R21527			RunNo: 21527					
Prep Date:		Analysis Date: 9/29/2014			SeqNo: 629897		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	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	1409809-002GMSDL			SampType:	MSDLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-14			Batch ID:	15380			RunNo:	21376		
Prep Date:	9/18/2014			Analysis Date:	9/23/2014			SeqNo:	624887		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.026	0.0010	0.02500	0	106	70	130	0.451	20		
Uranium	0.038	0.0010	0.02500	0.007945	120	70	130	0.326	20		

Sample ID	1409809-002GMSLL			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-14			Batch ID:	15380			RunNo:	21376		
Prep Date:	9/18/2014			Analysis Date:	9/23/2014			SeqNo:	624888		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.027	0.0010	0.02500	0	106	70	130				
Uranium	0.038	0.0010	0.02500	0.007945	121	70	130				

Sample ID	LLLCS-15380			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	15380			RunNo:	21376		
Prep Date:	9/18/2014			Analysis Date:	9/23/2014			SeqNo:	624956		
								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	0.024	0.0010	0.02500	0	97.8	85	115				
Selenium	0.024	0.0010	0.02500	0	97.9	85	115				
Uranium	0.025	0.0010	0.02500	0	99.1	85	115				

Sample ID	MB-15380			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	15380			RunNo:	21376		
Prep Date:	9/18/2014			Analysis Date:	9/23/2014			SeqNo:	624959		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB-15450	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	15450	RunNo:	21410					
Prep Date:	9/23/2014	Analysis Date:	9/24/2014	SeqNo:	625508	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-15450	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	15450	RunNo:	21410					
Prep Date:	9/23/2014	Analysis Date:	9/24/2014	SeqNo:	625509	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	95.8	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R21283	RunNo:	21283					
Prep Date:		Analysis Date:	9/17/2014	SeqNo:	621017	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:	R21283	RunNo:	21283					
Prep Date:		Analysis Date:	9/17/2014	SeqNo:	621018	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	94.8	90	110			
Chloride	4.6	0.50	5.000	0	92.4	90	110			
Bromide	2.4	0.10	2.500	0	96.3	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.2	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:	R21321	RunNo:	21321					
Prep Date:		Analysis Date:	9/18/2014	SeqNo:	622134	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:	R21321	RunNo:	21321					
Prep Date:		Analysis Date:	9/18/2014	SeqNo:	622135	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	98.5	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	MB-15341		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 15341		RunNo: 21248					
Prep Date:	9/17/2014		Analysis Date: 9/17/2014		SeqNo: 619741		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		106	59	141			

Sample ID	LCS-15341		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 15341		RunNo: 21248					
Prep Date:	9/17/2014		Analysis Date: 9/17/2014		SeqNo: 619742		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	100	69.7	142			
Surr: DNOP	0.52		0.5000		105	59	141			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R21299	RunNo:	21299					
Prep Date:		Analysis Date:	9/18/2014	SeqNo:	621575	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		93.8	70.9	130			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R21299	RunNo:	21299					
Prep Date:		Analysis Date:	9/18/2014	SeqNo:	624430	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.7	80	120			
Surr: BFB	20		20.00		101	70.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R21389			RunNo: 21389					
Prep Date:		Analysis Date: 9/23/2014			SeqNo: 624806	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R21389			RunNo: 21389					
Prep Date:		Analysis Date: 9/23/2014			SeqNo: 624806		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	8.9		10.00		89.4	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R21389			RunNo: 21389					
Prep Date:		Analysis Date: 9/23/2014			SeqNo: 624808		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	22	1.0	20.00	0	108	80	120			
Chlorobenzene	20	1.0	20.00	0	102	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 greater than 2.
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#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R21389			RunNo: 21389					
Prep Date:		Analysis Date: 9/23/2014			SeqNo: 624808		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	108	82.6	131			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.4	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	9.1		10.00		91.1	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	mb-15359		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 15359		RunNo: 21301					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 621631		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	20								
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	mb-15359	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	15359	RunNo:	21301					
Prep Date:	9/18/2014	Analysis Date:	9/19/2014	SeqNo:	621631	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	20								
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	38		200.0		18.9	12.1	85.8			
Surr: Phenol-d5	56		200.0		27.9	17.7	65.8			
Surr: 2,4,6-Tribromophenol	58		200.0		29.2	26	138			
Surr: Nitrobenzene-d5	54		100.0		54.0	47.5	119			
Surr: 2-Fluorobiphenyl	54		100.0		54.2	48.1	106			
Surr: 4-Terphenyl-d14	73		100.0		72.6	44	113			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	lcs-15359		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 15359		RunNo: 21301					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 621632		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.1	47.9	114			
4-Chloro-3-methylphenol	150	10	200.0	0	73.9	51.7	122			
2-Chlorophenol	140	10	200.0	0	69.8	40.7	113			
1,4-Dichlorobenzene	58	10	100.0	0	57.8	39.6	99.9			
2,4-Dinitrotoluene	57	10	100.0	0	57.3	40.8	113			
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.1	51.2	111			
4-Nitrophenol	95	10	200.0	0	47.3	15.7	86.9			
Pentachlorophenol	130	20	200.0	0	67.4	21.6	104			
Phenol	110	10	200.0	0	53.1	28.6	71.7			
Pyrene	85	10	100.0	0	84.9	54.2	128			
1,2,4-Trichlorobenzene	57	10	100.0	0	56.5	40.9	101			
Surr: 2-Fluorophenol	98		200.0		48.9	12.1	85.8			
Surr: Phenol-d5	93		200.0		46.5	17.7	65.8			
Surr: 2,4,6-Tribromophenol	140		200.0		68.2	26	138			
Surr: Nitrobenzene-d5	69		100.0		69.4	47.5	119			
Surr: 2-Fluorobiphenyl	66		100.0		65.5	48.1	106			
Surr: 4-Terphenyl-d14	81		100.0		81.3	44	113			

Sample ID	lcsd-15359		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 15359		RunNo: 21301					
Prep Date:	9/18/2014		Analysis Date: 9/19/2014		SeqNo: 621633		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	56	10	100.0	0	56.2	47.9	114	14.7	27.2	
4-Chloro-3-methylphenol	130	10	200.0	0	65.3	51.7	122	12.4	25.9	
2-Chlorophenol	110	10	200.0	0	57.2	40.7	113	19.8	22.5	
1,4-Dichlorobenzene	45	10	100.0	0	45.1	39.6	99.9	24.6	24.6	R
2,4-Dinitrotoluene	50	10	100.0	0	49.6	40.8	113	14.6	25.3	
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.6	51.2	111	13.7	23.6	
4-Nitrophenol	75	10	200.0	0	37.3	15.7	86.9	23.7	34.7	
Pentachlorophenol	110	20	200.0	0	52.6	21.6	104	24.7	32.8	
Phenol	89	10	200.0	0	44.5	28.6	71.7	17.7	25.5	
Pyrene	70	10	100.0	0	69.7	54.2	128	19.7	31.4	
1,2,4-Trichlorobenzene	47	10	100.0	0	46.7	40.9	101	18.9	25.9	
Surr: 2-Fluorophenol	80		200.0		39.8	12.1	85.8	0	0	
Surr: Phenol-d5	78		200.0		39.0	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	130		200.0		65.7	26	138	0	0	
Surr: Nitrobenzene-d5	59		100.0		59.2	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	58		100.0		57.5	48.1	106	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409809

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 Annual GW

Sample ID	lcsd-15359	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	15359	RunNo:	21301					
Prep Date:	9/18/2014	Analysis Date:	9/19/2014	SeqNo:	621633	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	83		100.0		83.0	44	113	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 greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1409809**

RcptNo: 1

Received by/date:	<u>AS</u>	<u>09/16/14</u>
Logged By:	Ashley Gallegos	9/16/2014 5:03:00 PM
Completed By:	Ashley Gallegos	9/17/2014 8:28:42 AM
Reviewed By:	<u>mg</u>	<u>09/17/14</u>

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 ☐

or Metals Analysis: Added 1mL HNO_3 to -002G for acceptable pH. AS
09/17/14

of preserved bottles checked for pH: 9
(<2 or >12 unless noted)
Adjusted? yes
Checked by: AS

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	Yes			

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) _____

☐ Standard ☐ Rush

2014 ANNUAL GW

Project #:

OW-13,-14,-29,-30

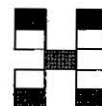
Project Manager:

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

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 11.1°



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 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 04, 2014

Cheryl Johnson

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

RE: Q4 2014

OrderNo.: 1411398

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/11/2014 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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: Q4 2014

Collection Date: 11/10/2014 3:50:00 PM

Lab ID: 1411398-001

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.019	0.0020		mg/L	1	11/16/2014 6:58:25 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 6:58:25 PM	R22599
Chromium	ND	0.0060		mg/L	1	11/16/2014 6:58:25 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 6:58:25 PM	R22599
Iron	ND	0.020		mg/L	1	11/16/2014 6:58:25 PM	R22599
Manganese	0.022	0.0020		mg/L	1	11/16/2014 6:58:25 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 6:58:25 PM	R22599
Zinc	0.063	0.010		mg/L	1	11/16/2014 6:58:25 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.024	0.0020		mg/L	1	11/16/2014 6:21:47 PM	16396
Cadmium	ND	0.0020		mg/L	1	11/16/2014 6:21:47 PM	16396
Chromium	ND	0.0060		mg/L	1	11/16/2014 6:21:47 PM	16396
Copper	0.021	0.0060		mg/L	1	11/16/2014 6:21:47 PM	16396
Iron	0.058	0.020		mg/L	1	11/16/2014 6:21:47 PM	16396
Manganese	0.038	0.0020		mg/L	1	11/16/2014 6:21:47 PM	16396
Silver	ND	0.0050		mg/L	1	11/16/2014 6:21:47 PM	16396
Zinc	0.010	0.010		mg/L	1	11/16/2014 6:21:47 PM	16396
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	11/17/2014 3:25:56 PM	R22589
Lead	ND	0.010		mg/L	10	11/24/2014 4:33:46 PM	R22774
Selenium	ND	0.0010		mg/L	1	11/17/2014 3:25:56 PM	R22589
Uranium	0.016	0.010		mg/L	10	11/24/2014 4:33:46 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0010	0.0010		mg/L	1	11/18/2014 4:55:58 PM	16396
Lead	ND	0.0010		mg/L	1	11/18/2014 4:55:58 PM	16396
Selenium	0.0011	0.0010		mg/L	1	11/18/2014 4:55:58 PM	16396
Uranium	0.018	0.0010		mg/L	1	11/18/2014 4:55:58 PM	16396
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 2:28:24 PM	16511
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Toluene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Ethylbenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Methyl tert-butyl ether (MTBE)	27	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: Q4 2014

Collection Date: 11/10/2014 3:50:00 PM

Lab ID: 1411398-001

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Naphthalene	ND	2.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1-Methylnaphthalene	ND	4.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
2-Methylnaphthalene	ND	4.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Acetone	ND	10		µg/L	1	11/12/2014 11:50:10 PM	R22493
Bromobenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Bromodichloromethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Bromoform	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Bromomethane	ND	3.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
2-Butanone	ND	10		µg/L	1	11/12/2014 11:50:10 PM	R22493
Carbon disulfide	ND	10		µg/L	1	11/12/2014 11:50:10 PM	R22493
Carbon Tetrachloride	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Chlorobenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Chloroethane	ND	2.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Chloroform	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Chloromethane	ND	3.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
2-Chlorotoluene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
4-Chlorotoluene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
cis-1,2-DCE	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Dibromochloromethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Dibromomethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,1-Dichloroethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,1-Dichloroethene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2-Dichloropropane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,3-Dichloropropane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
2,2-Dichloropropane	ND	2.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,1-Dichloropropene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Hexachlorobutadiene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
2-Hexanone	ND	10		µg/L	1	11/12/2014 11:50:10 PM	R22493
Isopropylbenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
4-Isopropyltoluene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
4-Methyl-2-pentanone	ND	10		µg/L	1	11/12/2014 11:50:10 PM	R22493
Methylene Chloride	ND	3.0		µg/L	1	11/12/2014 11:50:10 PM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: Q4 2014

Collection Date: 11/10/2014 3:50:00 PM

Lab ID: 1411398-001

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
n-Butylbenzene	ND	3.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
n-Propylbenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
sec-Butylbenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Styrene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
tert-Butylbenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
trans-1,2-DCE	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Trichlorofluoromethane	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Vinyl chloride	ND	1.0		µg/L	1	11/12/2014 11:50:10 PM	R22493
Xylenes, Total	ND	1.5		µg/L	1	11/12/2014 11:50:10 PM	R22493
Surr: 1,2-Dichloroethane-d4	116	70-130		%REC	1	11/12/2014 11:50:10 PM	R22493
Surr: 4-Bromofluorobenzene	123	70-130		%REC	1	11/12/2014 11:50:10 PM	R22493
Surr: Dibromofluoromethane	104	70-130		%REC	1	11/12/2014 11:50:10 PM	R22493
Surr: Toluene-d8	103	70-130		%REC	1	11/12/2014 11:50:10 PM	R22493

Refer to the QC Summary report and 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 27
	E	Value 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 greater than 2.	
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: Q4 2014

Collection Date: 11/10/2014 4:35:00 PM

Lab ID: 1411398-002

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	1.8	0.010		mg/L	5	11/16/2014 7:03:52 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 7:02:13 PM	R22599
Chromium	ND	0.0060		mg/L	1	11/16/2014 7:02:13 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 7:02:13 PM	R22599
Iron	4.5	0.10	*	mg/L	5	11/16/2014 7:03:52 PM	R22599
Manganese	2.2	0.010	*	mg/L	5	11/16/2014 7:03:52 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 7:02:13 PM	R22599
Zinc	0.036	0.010		mg/L	1	11/16/2014 7:02:13 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.8	0.010		mg/L	5	11/16/2014 6:27:13 PM	16396
Cadmium	ND	0.0020		mg/L	1	11/16/2014 6:25:37 PM	16396
Chromium	ND	0.0060		mg/L	1	11/16/2014 6:25:37 PM	16396
Copper	ND	0.0060		mg/L	1	11/16/2014 6:25:37 PM	16396
Iron	4.6	0.10	*	mg/L	5	11/16/2014 6:27:13 PM	16396
Manganese	2.2	0.010	*	mg/L	5	11/16/2014 6:27:13 PM	16396
Silver	ND	0.0050		mg/L	1	11/16/2014 6:25:37 PM	16396
Zinc	ND	0.010		mg/L	1	11/16/2014 6:25:37 PM	16396
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/24/2014 4:46:13 PM	R22774
Lead	ND	0.010		mg/L	10	11/24/2014 4:46:13 PM	R22774
Selenium	ND	0.010		mg/L	10	11/24/2014 4:46:13 PM	R22774
Uranium	ND	0.010		mg/L	10	11/24/2014 4:46:13 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0091	0.0010		mg/L	1	11/18/2014 5:06:44 PM	16396
Lead	ND	0.0010		mg/L	1	11/18/2014 5:06:44 PM	16396
Selenium	ND	0.010		mg/L	10	11/20/2014 12:52:43 PM	16396
Uranium	0.0077	0.0010		mg/L	1	11/18/2014 5:06:44 PM	16396
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 2:30:15 PM	16511
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	3600	100		µg/L	100	11/13/2014 1:10:40 AM	R22493
Toluene	15	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Ethylbenzene	170	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Methyl tert-butyl ether (MTBE)	810	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: Q4 2014

Collection Date: 11/10/2014 4:35:00 PM

Lab ID: 1411398-002

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Naphthalene	ND	20		µg/L	10	11/13/2014 1:37:26 AM	R22493
1-Methylnaphthalene	44	40		µg/L	10	11/13/2014 1:37:26 AM	R22493
2-Methylnaphthalene	ND	40		µg/L	10	11/13/2014 1:37:26 AM	R22493
Acetone	ND	100		µg/L	10	11/13/2014 1:37:26 AM	R22493
Bromobenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Bromodichloromethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Bromoform	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Bromomethane	ND	30		µg/L	10	11/13/2014 1:37:26 AM	R22493
2-Butanone	ND	100		µg/L	10	11/13/2014 1:37:26 AM	R22493
Carbon disulfide	ND	100		µg/L	10	11/13/2014 1:37:26 AM	R22493
Carbon Tetrachloride	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Chlorobenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Chloroethane	ND	20		µg/L	10	11/13/2014 1:37:26 AM	R22493
Chloroform	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Chloromethane	ND	30		µg/L	10	11/13/2014 1:37:26 AM	R22493
2-Chlorotoluene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
4-Chlorotoluene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
cis-1,2-DCE	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/13/2014 1:37:26 AM	R22493
Dibromochloromethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Dibromomethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2-Dichlorobenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,3-Dichlorobenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,4-Dichlorobenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Dichlorodifluoromethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,1-Dichloroethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,1-Dichloroethene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2-Dichloropropane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,3-Dichloropropane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
2,2-Dichloropropane	ND	20		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,1-Dichloropropene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Hexachlorobutadiene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
2-Hexanone	ND	100		µg/L	10	11/13/2014 1:37:26 AM	R22493
Isopropylbenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
4-Isopropyltoluene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
4-Methyl-2-pentanone	ND	100		µg/L	10	11/13/2014 1:37:26 AM	R22493
Methylene Chloride	ND	30		µg/L	10	11/13/2014 1:37:26 AM	R22493

Refer to the QC Summary report and 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 27
	E	Value 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 greater than 2.	
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: Q4 2014

Collection Date: 11/10/2014 4:35:00 PM

Lab ID: 1411398-002

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
n-Butylbenzene	ND	30		µg/L	10	11/13/2014 1:37:26 AM	R22493
n-Propylbenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
sec-Butylbenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Styrene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
tert-Butylbenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/13/2014 1:37:26 AM	R22493
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
trans-1,2-DCE	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,1,1-Trichloroethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,1,2-Trichloroethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Trichloroethene (TCE)	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Trichlorofluoromethane	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
1,2,3-Trichloropropane	ND	20		µg/L	10	11/13/2014 1:37:26 AM	R22493
Vinyl chloride	ND	10		µg/L	10	11/13/2014 1:37:26 AM	R22493
Xylenes, Total	ND	15		µg/L	10	11/13/2014 1:37:26 AM	R22493
Surr: 1,2-Dichloroethane-d4	107	70-130		%REC	10	11/13/2014 1:37:26 AM	R22493
Surr: 4-Bromofluorobenzene	103	70-130		%REC	10	11/13/2014 1:37:26 AM	R22493
Surr: Dibromofluoromethane	87.5	70-130		%REC	10	11/13/2014 1:37:26 AM	R22493
Surr: Toluene-d8	96.8	70-130		%REC	10	11/13/2014 1:37:26 AM	R22493

Refer to the QC Summary report and 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 27
	E	Value 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 greater than 2.	
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: Q4 2014

Collection Date: 11/11/2014 8:45:00 AM

Lab ID: 1411398-003

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.061	0.0020		mg/L	1	11/16/2014 7:13:05 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 7:13:05 PM	R22599
Chromium	ND	0.0060		mg/L	1	11/16/2014 7:13:05 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 7:13:05 PM	R22599
Iron	0.23	0.020		mg/L	1	11/16/2014 7:13:05 PM	R22599
Manganese	0.28	0.0020	*	mg/L	1	11/16/2014 7:13:05 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 7:13:05 PM	R22599
Zinc	0.029	0.010		mg/L	1	11/16/2014 7:13:05 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.063	0.0020		mg/L	1	11/16/2014 6:29:08 PM	16396
Cadmium	ND	0.0020		mg/L	1	11/16/2014 6:29:08 PM	16396
Chromium	ND	0.0060		mg/L	1	11/16/2014 6:29:08 PM	16396
Copper	ND	0.0060		mg/L	1	11/16/2014 6:29:08 PM	16396
Iron	0.33	0.020	*	mg/L	1	11/16/2014 6:29:08 PM	16396
Manganese	0.29	0.0020	*	mg/L	1	11/16/2014 6:29:08 PM	16396
Silver	ND	0.0050		mg/L	1	11/16/2014 6:29:08 PM	16396
Zinc	ND	0.010		mg/L	1	11/16/2014 6:29:08 PM	16396
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/24/2014 4:49:19 PM	R22774
Lead	ND	0.010		mg/L	10	11/24/2014 4:49:19 PM	R22774
Selenium	ND	0.010		mg/L	10	11/24/2014 4:49:19 PM	R22774
Uranium	0.054	0.010	*	mg/L	10	11/24/2014 4:49:19 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/20/2014 12:58:04 PM	16396
Lead	ND	0.0010		mg/L	1	11/18/2014 5:10:14 PM	16396
Selenium	ND	0.0050		mg/L	5	11/20/2014 12:58:04 PM	16396
Uranium	0.055	0.0050	*	mg/L	5	11/20/2014 12:58:04 PM	16396
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 2:32:00 PM	16511
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Toluene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Ethylbenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Methyl tert-butyl ether (MTBE)	3000	100		µg/L	100	11/13/2014 2:30:57 AM	R22493
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: Q4 2014

Collection Date: 11/11/2014 8:45:00 AM

Lab ID: 1411398-003

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Naphthalene	ND	10		µg/L	5	11/13/2014 2:57:41 AM	R22493
1-Methylnaphthalene	ND	20		µg/L	5	11/13/2014 2:57:41 AM	R22493
2-Methylnaphthalene	ND	20		µg/L	5	11/13/2014 2:57:41 AM	R22493
Acetone	ND	50		µg/L	5	11/13/2014 2:57:41 AM	R22493
Bromobenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Bromodichloromethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Bromoform	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Bromomethane	ND	15		µg/L	5	11/13/2014 2:57:41 AM	R22493
2-Butanone	ND	50		µg/L	5	11/13/2014 2:57:41 AM	R22493
Carbon disulfide	ND	50		µg/L	5	11/13/2014 2:57:41 AM	R22493
Carbon Tetrachloride	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Chlorobenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Chloroethane	ND	10		µg/L	5	11/13/2014 2:57:41 AM	R22493
Chloroform	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Chloromethane	ND	15		µg/L	5	11/13/2014 2:57:41 AM	R22493
2-Chlorotoluene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
4-Chlorotoluene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
cis-1,2-DCE	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/13/2014 2:57:41 AM	R22493
Dibromochloromethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Dibromomethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,1-Dichloroethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,1-Dichloroethene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,2-Dichloropropane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,3-Dichloropropane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
2,2-Dichloropropane	ND	10		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,1-Dichloropropene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Hexachlorobutadiene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
2-Hexanone	ND	50		µg/L	5	11/13/2014 2:57:41 AM	R22493
Isopropylbenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
4-Isopropyltoluene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
4-Methyl-2-pentanone	ND	50		µg/L	5	11/13/2014 2:57:41 AM	R22493
Methylene Chloride	ND	15		µg/L	5	11/13/2014 2:57:41 AM	R22493

Refer to the QC Summary report and 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 8 of 27
	E	Value 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 greater than 2.	
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: Q4 2014

Collection Date: 11/11/2014 8:45:00 AM

Lab ID: 1411398-003

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
n-Butylbenzene	ND	15		µg/L	5	11/13/2014 2:57:41 AM	R22493
n-Propylbenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
sec-Butylbenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Styrene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
tert-Butylbenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/13/2014 2:57:41 AM	R22493
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
trans-1,2-DCE	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Trichlorofluoromethane	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
1,2,3-Trichloropropane	ND	10		µg/L	5	11/13/2014 2:57:41 AM	R22493
Vinyl chloride	ND	5.0		µg/L	5	11/13/2014 2:57:41 AM	R22493
Xylenes, Total	ND	7.5		µg/L	5	11/13/2014 2:57:41 AM	R22493
Surr: 1,2-Dichloroethane-d4	107	70-130		%REC	5	11/13/2014 2:57:41 AM	R22493
Surr: 4-Bromofluorobenzene	138	70-130	S	%REC	5	11/13/2014 2:57:41 AM	R22493
Surr: Dibromofluoromethane	97.7	70-130		%REC	5	11/13/2014 2:57:41 AM	R22493
Surr: Toluene-d8	101	70-130		%REC	5	11/13/2014 2:57:41 AM	R22493

Refer to the QC Summary report and 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 27
	E	Value 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 greater than 2.	
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: Q4 2014

Collection Date: 11/11/2014 9:40:00 AM

Lab ID: 1411398-004

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.086	0.0020		mg/L	1	11/16/2014 7:16:55 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 7:16:55 PM	R22599
Chromium	ND	0.0060		mg/L	1	11/16/2014 7:16:55 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 7:16:55 PM	R22599
Iron	0.051	0.020		mg/L	1	11/16/2014 7:16:55 PM	R22599
Manganese	0.034	0.0020		mg/L	1	11/16/2014 7:16:55 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 7:16:55 PM	R22599
Zinc	0.029	0.010		mg/L	1	11/16/2014 7:16:55 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.093	0.0020		mg/L	1	11/16/2014 6:47:36 PM	16396
Cadmium	ND	0.0020		mg/L	1	11/16/2014 6:47:36 PM	16396
Chromium	ND	0.0060		mg/L	1	11/16/2014 6:47:36 PM	16396
Copper	ND	0.0060		mg/L	1	11/16/2014 6:47:36 PM	16396
Iron	0.18	0.020		mg/L	1	11/16/2014 6:47:36 PM	16396
Manganese	0.036	0.0020		mg/L	1	11/16/2014 6:47:36 PM	16396
Silver	ND	0.0050		mg/L	1	11/16/2014 6:47:36 PM	16396
Zinc	ND	0.010		mg/L	1	11/16/2014 6:47:36 PM	16396
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/24/2014 4:52:24 PM	R22774
Lead	ND	0.010		mg/L	10	11/24/2014 4:52:24 PM	R22774
Selenium	ND	0.010		mg/L	10	11/24/2014 4:52:24 PM	R22774
Uranium	0.050	0.010	*	mg/L	10	11/24/2014 4:52:24 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/20/2014 1:03:25 PM	16396
Lead	ND	0.0010		mg/L	1	11/18/2014 5:13:43 PM	16396
Selenium	ND	0.0050		mg/L	5	11/20/2014 1:03:25 PM	16396
Uranium	0.050	0.0050	*	mg/L	5	11/20/2014 1:03:25 PM	16396
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 2:33:46 PM	16511
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Toluene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Ethylbenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Methyl tert-butyl ether (MTBE)	3600	100		µg/L	100	11/13/2014 3:24:25 AM	R22493
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: Q4 2014

Collection Date: 11/11/2014 9:40:00 AM

Lab ID: 1411398-004

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Naphthalene	ND	10		µg/L	5	11/13/2014 3:51:15 AM	R22493
1-Methylnaphthalene	ND	20		µg/L	5	11/13/2014 3:51:15 AM	R22493
2-Methylnaphthalene	ND	20		µg/L	5	11/13/2014 3:51:15 AM	R22493
Acetone	ND	50		µg/L	5	11/13/2014 3:51:15 AM	R22493
Bromobenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Bromodichloromethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Bromoform	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Bromomethane	ND	15		µg/L	5	11/13/2014 3:51:15 AM	R22493
2-Butanone	ND	50		µg/L	5	11/13/2014 3:51:15 AM	R22493
Carbon disulfide	ND	50		µg/L	5	11/13/2014 3:51:15 AM	R22493
Carbon Tetrachloride	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Chlorobenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Chloroethane	ND	10		µg/L	5	11/13/2014 3:51:15 AM	R22493
Chloroform	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Chloromethane	ND	15		µg/L	5	11/13/2014 3:51:15 AM	R22493
2-Chlorotoluene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
4-Chlorotoluene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
cis-1,2-DCE	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/13/2014 3:51:15 AM	R22493
Dibromochloromethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Dibromomethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,1-Dichloroethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,1-Dichloroethene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,2-Dichloropropane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,3-Dichloropropane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
2,2-Dichloropropane	ND	10		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,1-Dichloropropene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Hexachlorobutadiene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
2-Hexanone	ND	50		µg/L	5	11/13/2014 3:51:15 AM	R22493
Isopropylbenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
4-Isopropyltoluene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
4-Methyl-2-pentanone	ND	50		µg/L	5	11/13/2014 3:51:15 AM	R22493
Methylene Chloride	ND	15		µg/L	5	11/13/2014 3:51:15 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: Q4 2014

Collection Date: 11/11/2014 9:40:00 AM

Lab ID: 1411398-004

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
n-Butylbenzene	ND	15		µg/L	5	11/13/2014 3:51:15 AM	R22493
n-Propylbenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
sec-Butylbenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Styrene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
tert-Butylbenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/13/2014 3:51:15 AM	R22493
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
trans-1,2-DCE	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Trichlorofluoromethane	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
1,2,3-Trichloropropane	ND	10		µg/L	5	11/13/2014 3:51:15 AM	R22493
Vinyl chloride	ND	5.0		µg/L	5	11/13/2014 3:51:15 AM	R22493
Xylenes, Total	ND	7.5		µg/L	5	11/13/2014 3:51:15 AM	R22493
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	5	11/13/2014 3:51:15 AM	R22493
Surr: 4-Bromofluorobenzene	136	70-130	S	%REC	5	11/13/2014 3:51:15 AM	R22493
Surr: Dibromofluoromethane	103	70-130		%REC	5	11/13/2014 3:51:15 AM	R22493
Surr: Toluene-d8	93.8	70-130		%REC	5	11/13/2014 3:51:15 AM	R22493

Refer to the QC Summary report and 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 12 of 27
	E	Value 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 greater than 2.	
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-111114

Project: Q4 2014

Collection Date: 11/11/2014

Lab ID: 1411398-005

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Toluene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Ethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Naphthalene	ND	2.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1-Methylnaphthalene	ND	4.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
2-Methylnaphthalene	ND	4.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Acetone	ND	10		µg/L	1	11/13/2014 4:18:06 AM	R22493
Bromobenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Bromodichloromethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Bromoform	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Bromomethane	ND	3.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
2-Butanone	ND	10		µg/L	1	11/13/2014 4:18:06 AM	R22493
Carbon disulfide	ND	10		µg/L	1	11/13/2014 4:18:06 AM	R22493
Carbon Tetrachloride	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Chlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Chloroethane	ND	2.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Chloroform	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Chloromethane	ND	3.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
2-Chlorotoluene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
4-Chlorotoluene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
cis-1,2-DCE	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Dibromochloromethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Dibromomethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,1-Dichloroethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,1-Dichloroethene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2-Dichloropropane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,3-Dichloropropane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
2,2-Dichloropropane	ND	2.0		µg/L	1	11/13/2014 4:18:06 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-111114

Project: Q4 2014

Collection Date: 11/11/2014

Lab ID: 1411398-005

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Hexachlorobutadiene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
2-Hexanone	ND	10		µg/L	1	11/13/2014 4:18:06 AM	R22493
Isopropylbenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
4-Isopropyltoluene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
4-Methyl-2-pentanone	ND	10		µg/L	1	11/13/2014 4:18:06 AM	R22493
Methylene Chloride	ND	3.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
n-Butylbenzene	ND	3.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
n-Propylbenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
sec-Butylbenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Styrene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
tert-Butylbenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
trans-1,2-DCE	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Trichlorofluoromethane	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Vinyl chloride	ND	1.0		µg/L	1	11/13/2014 4:18:06 AM	R22493
Xylenes, Total	ND	1.5		µg/L	1	11/13/2014 4:18:06 AM	R22493
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%REC	1	11/13/2014 4:18:06 AM	R22493
Surr: 4-Bromofluorobenzene	131	70-130	S	%REC	1	11/13/2014 4:18:06 AM	R22493
Surr: Dibromofluoromethane	83.4	70-130		%REC	1	11/13/2014 4:18:06 AM	R22493
Surr: Toluene-d8	105	70-130		%REC	1	11/13/2014 4:18:06 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-100

Project: Q4 2014

Collection Date: 11/11/2014 10:30:00 AM

Lab ID: 1411398-006

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Toluene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Ethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Naphthalene	ND	2.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1-Methylnaphthalene	ND	4.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
2-Methylnaphthalene	ND	4.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Acetone	ND	10		µg/L	1	11/13/2014 4:44:55 AM	R22493
Bromobenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Bromodichloromethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Bromoform	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Bromomethane	ND	3.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
2-Butanone	ND	10		µg/L	1	11/13/2014 4:44:55 AM	R22493
Carbon disulfide	ND	10		µg/L	1	11/13/2014 4:44:55 AM	R22493
Carbon Tetrachloride	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Chlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Chloroethane	ND	2.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Chloroform	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Chloromethane	ND	3.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
2-Chlorotoluene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
4-Chlorotoluene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
cis-1,2-DCE	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Dibromochloromethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Dibromomethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,1-Dichloroethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,1-Dichloroethene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2-Dichloropropane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,3-Dichloropropane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
2,2-Dichloropropane	ND	2.0		µg/L	1	11/13/2014 4:44:55 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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 1411398

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-100

Project: Q4 2014

Collection Date: 11/11/2014 10:30:00 AM

Lab ID: 1411398-006

Matrix: AQUEOUS

Received Date: 11/11/2014 4:23:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Hexachlorobutadiene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
2-Hexanone	ND	10		µg/L	1	11/13/2014 4:44:55 AM	R22493
Isopropylbenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
4-Isopropyltoluene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
4-Methyl-2-pentanone	ND	10		µg/L	1	11/13/2014 4:44:55 AM	R22493
Methylene Chloride	ND	3.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
n-Butylbenzene	ND	3.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
n-Propylbenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
sec-Butylbenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Styrene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
tert-Butylbenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
trans-1,2-DCE	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Trichlorofluoromethane	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Vinyl chloride	ND	1.0		µg/L	1	11/13/2014 4:44:55 AM	R22493
Xylenes, Total	ND	1.5		µg/L	1	11/13/2014 4:44:55 AM	R22493
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	11/13/2014 4:44:55 AM	R22493
Surr: 4-Bromofluorobenzene	135	70-130	S	%REC	1	11/13/2014 4:44:55 AM	R22493
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	11/13/2014 4:44:55 AM	R22493
Surr: Toluene-d8	104	70-130		%REC	1	11/13/2014 4:44:55 AM	R22493

Refer to the QC Summary report and 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 greater than 2.
	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#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666147	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	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666149	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	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666151	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	99.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Manganese	0.47	0.0020	0.5000	0	94.7	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22599			RunNo: 22599				
Prep Date:			Analysis Date: 11/16/2014			SeqNo: 666152		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0	109	85	115			
Cadmium	0.55	0.0020	0.5000	0	110	85	115			
Chromium	0.54	0.0060	0.5000	0	108	85	115			
Copper	0.55	0.0060	0.5000	0	109	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Manganese	0.52	0.0020	0.5000	0	104	85	115			
Silver	0.12	0.0050	0.1000	0	117	85	115			S
Zinc	0.54	0.010	0.5000	0	109	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16396		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16396		RunNo: 22599					
Prep Date:	11/14/2014		Analysis Date: 11/16/2014		SeqNo: 666155		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-16396		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16396		RunNo: 22599					
Prep Date:	11/14/2014		Analysis Date: 11/16/2014		SeqNo: 666156		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	0.49	0.0020	0.5000	0	98.9	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.0	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Manganese	0.47	0.0020	0.5000	0	94.3	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.50	0.010	0.5000	0	99.6	85	115			

Sample ID	1411398-003BMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-29		Batch ID: 16396		RunNo: 22599					
Prep Date:	11/14/2014		Analysis Date: 11/16/2014		SeqNo: 666218		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.06274	97.9	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.2	70	130			
Chromium	0.49	0.0060	0.5000	0	97.8	70	130			
Copper	0.52	0.0060	0.5000	0	105	70	130			
Iron	0.85	0.020	0.5000	0.3274	105	70	130			
Manganese	0.76	0.0020	0.5000	0.2862	93.8	70	130			
Silver	0.11	0.0050	0.1000	0	106	70	130			
Zinc	0.50	0.010	0.5000	0.004070	98.8	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	1411398-003BMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	OW-29	Batch ID:	16396	RunNo:	22599					
Prep Date:	11/14/2014	Analysis Date:	11/16/2014	SeqNo:	666219	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.06274	98.8	70	130	0.813	20	
Cadmium	0.49	0.0020	0.5000	0	97.9	70	130	0.273	20	
Chromium	0.49	0.0060	0.5000	0	98.6	70	130	0.790	20	
Copper	0.53	0.0060	0.5000	0	105	70	130	0.558	20	
Iron	0.85	0.020	0.5000	0.3274	104	70	130	0.328	20	
Manganese	0.76	0.0020	0.5000	0.2862	94.5	70	130	0.481	20	
Silver	0.11	0.0050	0.1000	0	107	70	130	1.03	20	
Zinc	0.50	0.010	0.5000	0.004070	99.9	70	130	1.15	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22589		RunNo: 22589					
Prep Date:			Analysis Date: 11/17/2014		SeqNo: 665959		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	0.023	0.0010	0.02500	0	93.9	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22589		RunNo: 22589					
Prep Date:			Analysis Date: 11/17/2014		SeqNo: 665960		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			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22589			RunNo: 22589					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 665963		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	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22589			RunNo: 22589					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 665964		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: R22774		RunNo: 22774				
Prep Date:				Analysis Date: 11/24/2014		SeqNo: 672122		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	92.5	85	115			
Lead	0.024	0.0010	0.02500	0	94.4	85	115			
Selenium	0.022	0.0010	0.02500	0	89.7	85	115			
Uranium	0.024	0.0010	0.02500	0	95.2	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS			SampType: LCS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW			Batch ID: R22774		RunNo: 22774				
Prep Date:				Analysis Date: 11/24/2014		SeqNo: 672123		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	0.024	0.0010	0.02500	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			
Uranium	0.024	0.0010	0.02500	0	94.8	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LLLCS-16396		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 16396		RunNo: 22609					
Prep Date:	11/14/2014		Analysis Date: 11/18/2014		SeqNo: 666764		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	95.6	85	115			
Lead	0.026	0.0010	0.02500	0	103	85	115			
Selenium	0.023	0.0010	0.02500	0	93.2	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB-16396	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 16396			RunNo: 22609					
Prep Date:	11/14/2014	Analysis Date: 11/18/2014			SeqNo: 666766		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16511	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	16511	RunNo:	22710					
Prep Date:	11/21/2014	Analysis Date:	11/21/2014	SeqNo:	669836	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-16511	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	16511	RunNo:	22710					
Prep Date:	11/21/2014	Analysis Date:	11/21/2014	SeqNo:	669837	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.
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22493			RunNo: 22493					
Prep Date:		Analysis Date: 11/12/2014			SeqNo: 663475	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22493			RunNo: 22493					
Prep Date:		Analysis Date: 11/12/2014			SeqNo: 663475		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	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	14		10.00		141	70	130			S
Surr: Dibromofluoromethane	8.4		10.00		83.6	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22493			RunNo: 22493					
Prep Date:		Analysis Date: 11/12/2014			SeqNo: 663476		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	21	1.0	20.00	0	107	80	120			
Chlorobenzene	19	1.0	20.00	0	96.5	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 greater than 2.
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#: 1411398

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R22493			RunNo: 22493						
Prep Date:	Analysis Date: 11/12/2014			SeqNo: 663476		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	95.6	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	94.4	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	13		10.00		129	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.5	70	130			
Surr: Toluene-d8	9.6		10.00		95.9	70	130			

Sample ID 1411398-001a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: OW-13	Batch ID: R22493			RunNo: 22493						
Prep Date:	Analysis Date: 11/13/2014			SeqNo: 663494		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	19	1.0	20.00	0	96.8	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	89.6	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.7	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	9.7		10.00		97.1	70	130			

Sample ID 1411398-001a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: OW-13	Batch ID: R22493			RunNo: 22493						
Prep Date:	Analysis Date: 11/13/2014			SeqNo: 663495		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	3.92	20	
Toluene	21	1.0	20.00	0	106	70	130	3.87	20	
Chlorobenzene	20	1.0	20.00	0	97.9	70	130	1.15	20	
1,1-Dichloroethene	18	1.0	20.00	0	89.1	70	130	0.568	20	
Trichloroethene (TCE)	18	1.0	20.00	0	88.5	70	130	2.46	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	10		10.00		104	70	130	0	0	
Surr: Toluene-d8	10		10.00		101	70	130	0	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 greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411398

RcptNo: 1

Received by/date: CS 11/11/14

Logged By: Celina Sessa 11/11/2014 4:23:00 PM

Celina Sessa

Completed By: Celina Sessa 11/11/2014 4:57:08 PM

Celina Sessa

Reviewed By: [Signature] 11/11/14

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? 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			

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:

Q4 2014

Project #:

OW-13,-14,-29,-30

Project Manager:

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

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°C

Red	White	Red
White	Red	White
Blue	White	Blue

**HALL ENVIRON
ANALYSIS LAB**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87110

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Date: _____

Time:

Relinquished by:

Received by:

Date	Time

11-14

1630

Rock Layers

Love

11-11-14 214

Date: _____

Time:

Relinquished by:

Received by:

Date	Time

Remarks:



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

July 08, 2014

Cheryl Johnson

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

RE: 2014 2nd Quarter

OrderNo.: 1406363

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/6/2014 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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 11:50:00 AM

Lab ID: 1406363-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/11/2014 6:29:58 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 6:29:58 AM	13583
Surr: DNOP	107	62.7-145		%REC	1	6/11/2014 6:29:58 AM	13583
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/13/2014 1:16:55 AM	R19229
Surr: BFB	98.9	70.9-130		%REC	1	6/13/2014 1:16:55 AM	R19229
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.26	0.10		mg/L	1	6/9/2014 6:04:25 PM	R19165
Chloride	66	10		mg/L	20	6/9/2014 6:16:50 PM	R19165
Bromide	0.27	0.10		mg/L	1	6/9/2014 6:04:25 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 6:04:25 PM	R19165
Sulfate	160	10		mg/L	20	6/9/2014 6:16:50 PM	R19165
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/10/2014 1:18:53 AM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.039	0.0020		mg/L	1	6/13/2014 2:43:48 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 2:43:48 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 2:43:48 PM	R19281
Copper	ND	0.0060		mg/L	1	6/13/2014 2:43:48 PM	R19281
Iron	0.64	0.020	*	mg/L	1	6/13/2014 2:43:48 PM	R19281
Manganese	0.025	0.0020		mg/L	1	6/13/2014 2:43:48 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 2:43:48 PM	R19281
Zinc	0.013	0.010		mg/L	1	6/13/2014 2:43:48 PM	R19281
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.034	0.0020		mg/L	1	6/11/2014 2:47:03 PM	13601
Cadmium	ND	0.0020		mg/L	1	6/11/2014 2:47:03 PM	13601
Calcium	3.5	1.0		mg/L	1	6/11/2014 2:47:03 PM	13601
Chromium	ND	0.0060		mg/L	1	6/11/2014 2:47:03 PM	13601
Copper	ND	0.0060		mg/L	1	6/11/2014 2:47:03 PM	13601
Iron	1.7	0.10	*	mg/L	5	6/11/2014 2:48:42 PM	13601
Magnesium	ND	1.0		mg/L	1	6/11/2014 2:47:03 PM	13601
Manganese	0.073	0.0020	*	mg/L	1	6/11/2014 2:47:03 PM	13601
Potassium	1.7	1.0		mg/L	1	6/11/2014 2:47:03 PM	13601
Silver	ND	0.0050		mg/L	1	6/12/2014 1:11:52 PM	13601
Sodium	310	5.0		mg/L	5	6/12/2014 1:13:33 PM	13601
Zinc	0.031	0.010		mg/L	1	6/11/2014 2:47:03 PM	13601
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0016	0.0010		mg/L	1	6/12/2014 4:32:21 PM	R19228

Refer to the QC Summary report and 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 40
	E	Value 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 greater than 2.	
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 11:50:00 AM

Lab ID: 1406363-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	6/18/2014 3:03:15 PM	R19364
Selenium	0.0066	0.0010		mg/L	1	6/12/2014 4:32:21 PM	R19228
Uranium	0.044	0.0050	*	mg/L	5	6/20/2014 5:23:00 PM	R19449
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 5:04:28 PM	13601
Lead	0.0030	0.0010		mg/L	1	6/13/2014 3:25:24 PM	13601
Selenium	ND	0.0050		mg/L	5	6/17/2014 5:04:28 PM	13601
Uranium	0.042	0.0010	*	mg/L	1	6/13/2014 3:25:24 PM	13601
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:57:43 AM	13722
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Toluene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Ethylbenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Naphthalene	ND	2.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1-Methylnaphthalene	ND	4.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
2-Methylnaphthalene	ND	4.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Acetone	ND	10		µg/L	1	6/9/2014 10:22:30 PM	R19143
Bromobenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Bromodichloromethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Bromoform	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Bromomethane	ND	3.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
2-Butanone	ND	10		µg/L	1	6/9/2014 10:22:30 PM	R19143
Carbon disulfide	ND	10		µg/L	1	6/9/2014 10:22:30 PM	R19143
Carbon Tetrachloride	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Chlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Chloroethane	ND	2.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Chloroform	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Chloromethane	ND	3.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
2-Chlorotoluene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
4-Chlorotoluene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
cis-1,2-DCE	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 11:50:00 AM

Lab ID: 1406363-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Dibromochloromethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Dibromomethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,1-Dichloroethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,1-Dichloroethene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2-Dichloropropane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,3-Dichloropropane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
2,2-Dichloropropane	ND	2.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,1-Dichloropropene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Hexachlorobutadiene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
2-Hexanone	ND	10		µg/L	1	6/9/2014 10:22:30 PM	R19143
Isopropylbenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
4-Isopropyltoluene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
4-Methyl-2-pentanone	ND	10		µg/L	1	6/9/2014 10:22:30 PM	R19143
Methylene Chloride	ND	3.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
n-Butylbenzene	ND	3.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
n-Propylbenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
sec-Butylbenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Styrene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
tert-Butylbenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
trans-1,2-DCE	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Trichlorofluoromethane	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Vinyl chloride	ND	1.0		µg/L	1	6/9/2014 10:22:30 PM	R19143
Xylenes, Total	ND	1.5		µg/L	1	6/9/2014 10:22:30 PM	R19143
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	6/9/2014 10:22:30 PM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 11:50:00 AM

Lab ID: 1406363-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	85.8	70-130		%REC	1	6/9/2014 10:22:30 PM	R19143
Surr: Dibromofluoromethane	85.9	70-130		%REC	1	6/9/2014 10:22:30 PM	R19143
Surr: Toluene-d8	97.4	70-130		%REC	1	6/9/2014 10:22:30 PM	R19143

Refer to the QC Summary report and 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 40
	E	Value 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 greater than 2.	
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 2:15:00 PM

Lab ID: 1406363-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/11/2014 6:51:41 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 6:51:41 AM	13583
Surr: DNOP	121	62.7-145		%REC	1	6/11/2014 6:51:41 AM	13583
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.069	0.050		mg/L	1	6/13/2014 1:47:03 AM	R19229
Surr: BFB	111	70.9-130		%REC	1	6/13/2014 1:47:03 AM	R19229
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	0.10		mg/L	1	6/9/2014 6:54:04 PM	R19165
Chloride	1500	100		mg/L	200	6/11/2014 1:53:16 AM	R19191
Bromide	1.2	0.10		mg/L	1	6/9/2014 6:54:04 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2014 6:54:04 PM	R19165
Sulfate	200	10		mg/L	20	6/9/2014 7:06:29 PM	R19165
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/26/2014 1:00:42 AM	R19526
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.094	0.0020		mg/L	1	6/13/2014 2:47:25 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 2:47:25 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 2:47:25 PM	R19281
Copper	ND	0.0060		mg/L	1	6/13/2014 2:47:25 PM	R19281
Iron	ND	0.020		mg/L	1	6/13/2014 2:47:25 PM	R19281
Manganese	0.13	0.0020	*	mg/L	1	6/13/2014 2:47:25 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 2:47:25 PM	R19281
Zinc	ND	0.010		mg/L	1	6/13/2014 2:47:25 PM	R19281
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.094	0.0020		mg/L	1	6/11/2014 2:50:26 PM	13601
Cadmium	ND	0.0020		mg/L	1	6/11/2014 2:50:26 PM	13601
Calcium	250	5.0		mg/L	5	6/11/2014 2:52:16 PM	13601
Chromium	ND	0.0060		mg/L	1	6/11/2014 2:50:26 PM	13601
Copper	ND	0.0060		mg/L	1	6/11/2014 2:50:26 PM	13601
Iron	ND	0.020		mg/L	1	6/11/2014 2:50:26 PM	13601
Magnesium	40	1.0		mg/L	1	6/11/2014 2:50:26 PM	13601
Manganese	0.14	0.0020	*	mg/L	1	6/11/2014 2:50:26 PM	13601
Potassium	4.4	1.0		mg/L	1	6/11/2014 2:50:26 PM	13601
Silver	ND	0.0050		mg/L	1	6/12/2014 1:15:18 PM	13601
Sodium	1100	20		mg/L	20	6/12/2014 1:17:14 PM	13601
Zinc	ND	0.010		mg/L	1	6/11/2014 2:50:26 PM	13601
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 3:08:15 PM	R19364

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 2:15:00 PM

Lab ID: 1406363-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	6/18/2014 3:08:15 PM	R19364
Selenium	0.017	0.0050		mg/L	5	6/18/2014 3:08:15 PM	R19364
Uranium	0.062	0.0050	*	mg/L	5	6/20/2014 5:32:08 PM	R19449
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 5:09:27 PM	13601
Lead	ND	0.0010		mg/L	1	6/13/2014 3:30:24 PM	13601
Selenium	0.015	0.0050		mg/L	5	6/17/2014 5:09:27 PM	13601
Uranium	0.064	0.0050	*	mg/L	5	6/17/2014 5:09:27 PM	13601
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:59:32 AM	13722
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Toluene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Ethylbenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Methyl tert-butyl ether (MTBE)	92	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Naphthalene	ND	2.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1-Methylnaphthalene	ND	4.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
2-Methylnaphthalene	ND	4.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Acetone	ND	10		µg/L	1	6/9/2014 10:51:51 PM	R19143
Bromobenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Bromodichloromethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Bromoform	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Bromomethane	ND	3.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
2-Butanone	ND	10		µg/L	1	6/9/2014 10:51:51 PM	R19143
Carbon disulfide	ND	10		µg/L	1	6/9/2014 10:51:51 PM	R19143
Carbon Tetrachloride	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Chlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Chloroethane	ND	2.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Chloroform	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Chloromethane	ND	3.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
2-Chlorotoluene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
4-Chlorotoluene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
cis-1,2-DCE	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 1406363

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 2:15:00 PM

Lab ID: 1406363-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Dibromochloromethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Dibromomethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,1-Dichloroethane	1.2	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,1-Dichloroethene	1.2	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2-Dichloropropane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,3-Dichloropropane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
2,2-Dichloropropane	ND	2.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,1-Dichloropropene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Hexachlorobutadiene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
2-Hexanone	ND	10		µg/L	1	6/9/2014 10:51:51 PM	R19143
Isopropylbenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
4-Isopropyltoluene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
4-Methyl-2-pentanone	ND	10		µg/L	1	6/9/2014 10:51:51 PM	R19143
Methylene Chloride	ND	3.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
n-Butylbenzene	ND	3.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
n-Propylbenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
sec-Butylbenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Styrene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
tert-Butylbenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
trans-1,2-DCE	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Trichlorofluoromethane	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Vinyl chloride	ND	1.0		µg/L	1	6/9/2014 10:51:51 PM	R19143
Xylenes, Total	ND	1.5		µg/L	1	6/9/2014 10:51:51 PM	R19143
Surr: 1,2-Dichloroethane-d4	89.2	70-130		%REC	1	6/9/2014 10:51:51 PM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 2:15:00 PM

Lab ID: 1406363-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	79.9	70-130		%REC	1	6/9/2014 10:51:51 PM	R19143
Surr: Dibromofluoromethane	85.2	70-130		%REC	1	6/9/2014 10:51:51 PM	R19143
Surr: Toluene-d8	100	70-130		%REC	1	6/9/2014 10:51:51 PM	R19143

Refer to the QC Summary report and 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 8 of 40
	E	Value 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 greater than 2.	
	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 1406363

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 9:53:00 AM

Lab ID: 1406363-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.017	0.0020		mg/L	1	6/13/2014 2:51:14 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 2:51:14 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 2:51:14 PM	R19281
Copper	ND	0.0060		mg/L	1	6/13/2014 2:51:14 PM	R19281
Iron	ND	0.020		mg/L	1	6/13/2014 2:51:14 PM	R19281
Manganese	0.017	0.0020		mg/L	1	6/13/2014 2:51:14 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 2:51:14 PM	R19281
Zinc	ND	0.010		mg/L	1	6/13/2014 2:51:14 PM	R19281
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	6/11/2014 3:15:36 PM	13601
Cadmium	ND	0.0020		mg/L	1	6/11/2014 3:15:36 PM	13601
Chromium	ND	0.0060		mg/L	1	6/11/2014 3:15:36 PM	13601
Copper	ND	0.0060		mg/L	1	6/11/2014 3:15:36 PM	13601
Iron	ND	0.020		mg/L	1	6/11/2014 3:15:36 PM	13601
Manganese	0.020	0.0020		mg/L	1	6/11/2014 3:15:36 PM	13601
Silver	ND	0.0050		mg/L	1	6/12/2014 1:34:11 PM	13601
Zinc	ND	0.010		mg/L	1	6/12/2014 1:34:11 PM	13601
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0012	0.0010		mg/L	1	6/12/2014 4:38:26 PM	R19228
Lead	ND	0.0050		mg/L	5	6/18/2014 3:13:14 PM	R19364
Selenium	0.0022	0.0010		mg/L	1	6/12/2014 4:38:26 PM	R19228
Uranium	0.015	0.0050		mg/L	5	6/20/2014 5:35:10 PM	R19449
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 5:14:26 PM	13601
Lead	ND	0.0010		mg/L	1	6/13/2014 3:35:24 PM	13601
Selenium	ND	0.0050		mg/L	5	6/17/2014 5:14:26 PM	13601
Uranium	0.016	0.0010		mg/L	1	6/13/2014 3:35:24 PM	13601
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 11:01:21 AM	13722
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Toluene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Ethylbenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Methyl tert-butyl ether (MTBE)	20	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 1406363

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 9:53:00 AM

Lab ID: 1406363-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Naphthalene	ND	2.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
2-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Acetone	ND	10		µg/L	1	6/10/2014 1:19:24 AM	R19143
Bromobenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Bromodichloromethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Bromoform	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Bromomethane	ND	3.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
2-Butanone	ND	10		µg/L	1	6/10/2014 1:19:24 AM	R19143
Carbon disulfide	ND	10		µg/L	1	6/10/2014 1:19:24 AM	R19143
Carbon Tetrachloride	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Chlorobenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Chloroethane	ND	2.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Chloroform	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Chloromethane	ND	3.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
2-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
4-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
cis-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Dibromochloromethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Dibromomethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,1-Dichloroethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,1-Dichloroethene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,3-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
2,2-Dichloropropane	ND	2.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,1-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Hexachlorobutadiene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
2-Hexanone	ND	10		µg/L	1	6/10/2014 1:19:24 AM	R19143
Isopropylbenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
4-Isopropyltoluene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
4-Methyl-2-pentanone	ND	10		µg/L	1	6/10/2014 1:19:24 AM	R19143
Methylene Chloride	ND	3.0		µg/L	1	6/10/2014 1:19:24 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**Date Reported: **7/8/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-13**Project:** 2014 2nd Quarter**Collection Date:** 6/3/2014 9:53:00 AM**Lab ID:** 1406363-003**Matrix:** AQUEOUS**Received Date:** 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
n-Butylbenzene	ND	3.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
n-Propylbenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
sec-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Styrene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
tert-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
trans-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Trichlorofluoromethane	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Vinyl chloride	ND	1.0		µg/L	1	6/10/2014 1:19:24 AM	R19143
Xylenes, Total	ND	1.5		µg/L	1	6/10/2014 1:19:24 AM	R19143
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%REC	1	6/10/2014 1:19:24 AM	R19143
Surr: 4-Bromofluorobenzene	79.2	70-130		%REC	1	6/10/2014 1:19:24 AM	R19143
Surr: Dibromofluoromethane	83.8	70-130		%REC	1	6/10/2014 1:19:24 AM	R19143
Surr: Toluene-d8	98.9	70-130		%REC	1	6/10/2014 1:19:24 AM	R19143

Refer to the QC Summary report and 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 11 of 40
	E	Value 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 greater than 2.	
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 8:32:00 AM

Lab ID: 1406363-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.7	0.010		mg/L	5	6/13/2014 2:56:41 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 2:54:55 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 2:54:55 PM	R19281
Copper	ND	0.0060		mg/L	1	6/13/2014 2:54:55 PM	R19281
Iron	4.6	0.10	*	mg/L	5	6/13/2014 2:56:41 PM	R19281
Manganese	2.3	0.010	*	mg/L	5	6/13/2014 2:56:41 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 2:54:55 PM	R19281
Zinc	0.017	0.010		mg/L	1	6/13/2014 2:54:55 PM	R19281
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.7	0.010		mg/L	5	6/11/2014 2:56:00 PM	13601
Cadmium	ND	0.0020		mg/L	1	6/11/2014 2:54:14 PM	13601
Chromium	ND	0.0060		mg/L	1	6/11/2014 2:54:14 PM	13601
Copper	ND	0.0060		mg/L	1	6/11/2014 2:54:14 PM	13601
Iron	4.8	0.10	*	mg/L	5	6/11/2014 2:56:00 PM	13601
Manganese	2.3	0.010	*	mg/L	5	6/11/2014 2:56:00 PM	13601
Silver	ND	0.0050		mg/L	1	6/12/2014 1:36:09 PM	13601
Zinc	ND	0.010		mg/L	1	6/11/2014 2:54:14 PM	13601
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.0050	*	mg/L	5	6/18/2014 3:18:13 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 3:18:13 PM	R19364
Selenium	0.018	0.0050		mg/L	5	6/18/2014 3:18:13 PM	R19364
Uranium	0.0083	0.0050		mg/L	5	6/20/2014 5:38:12 PM	R19449
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.0050	*	mg/L	5	6/17/2014 5:19:25 PM	13601
Lead	ND	0.0010		mg/L	1	6/13/2014 3:40:24 PM	13601
Selenium	0.017	0.0050		mg/L	5	6/17/2014 5:19:25 PM	13601
Uranium	0.0076	0.0010		mg/L	1	6/13/2014 3:40:24 PM	13601
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 11:03:11 AM	13722
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	3700	200		µg/L	200	6/10/2014 1:48:56 AM	R19143
Toluene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Ethylbenzene	120	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Methyl tert-butyl ether (MTBE)	930	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2,4-Trimethylbenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,3,5-Trimethylbenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143

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 greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 8:32:00 AM

Lab ID: 1406363-004

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Naphthalene	ND	40		µg/L	20	6/10/2014 2:18:26 AM	R19143
1-Methylnaphthalene	ND	80		µg/L	20	6/10/2014 2:18:26 AM	R19143
2-Methylnaphthalene	ND	80		µg/L	20	6/10/2014 2:18:26 AM	R19143
Acetone	ND	200		µg/L	20	6/10/2014 2:18:26 AM	R19143
Bromobenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Bromodichloromethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Bromoform	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Bromomethane	ND	60		µg/L	20	6/10/2014 2:18:26 AM	R19143
2-Butanone	ND	200		µg/L	20	6/10/2014 2:18:26 AM	R19143
Carbon disulfide	ND	200		µg/L	20	6/10/2014 2:18:26 AM	R19143
Carbon Tetrachloride	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Chlorobenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Chloroethane	ND	40		µg/L	20	6/10/2014 2:18:26 AM	R19143
Chloroform	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Chloromethane	ND	60		µg/L	20	6/10/2014 2:18:26 AM	R19143
2-Chlorotoluene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
4-Chlorotoluene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
cis-1,2-DCE	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
cis-1,3-Dichloropropene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	6/10/2014 2:18:26 AM	R19143
Dibromochloromethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Dibromomethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2-Dichlorobenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,3-Dichlorobenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,4-Dichlorobenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Dichlorodifluoromethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,1-Dichloroethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,1-Dichloroethene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2-Dichloropropane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,3-Dichloropropane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
2,2-Dichloropropane	ND	40		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,1-Dichloropropene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Hexachlorobutadiene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
2-Hexanone	ND	200		µg/L	20	6/10/2014 2:18:26 AM	R19143
Isopropylbenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
4-Isopropyltoluene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
4-Methyl-2-pentanone	ND	200		µg/L	20	6/10/2014 2:18:26 AM	R19143
Methylene Chloride	ND	60		µg/L	20	6/10/2014 2:18:26 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**Date Reported: **7/8/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-14**Project:** 2014 2nd Quarter**Collection Date:** 6/3/2014 8:32:00 AM**Lab ID:** 1406363-004**Matrix:** AQUEOUS**Received Date:** 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
n-Butylbenzene	ND	60		µg/L	20	6/10/2014 2:18:26 AM	R19143
n-Propylbenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
sec-Butylbenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Styrene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
tert-Butylbenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	6/10/2014 2:18:26 AM	R19143
Tetrachloroethene (PCE)	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
trans-1,2-DCE	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
trans-1,3-Dichloropropene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2,3-Trichlorobenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2,4-Trichlorobenzene	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,1,1-Trichloroethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,1,2-Trichloroethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Trichloroethene (TCE)	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Trichlorofluoromethane	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
1,2,3-Trichloropropane	ND	40		µg/L	20	6/10/2014 2:18:26 AM	R19143
Vinyl chloride	ND	20		µg/L	20	6/10/2014 2:18:26 AM	R19143
Xylenes, Total	ND	30		µg/L	20	6/10/2014 2:18:26 AM	R19143
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	20	6/10/2014 2:18:26 AM	R19143
Surr: 4-Bromofluorobenzene	88.0	70-130		%REC	20	6/10/2014 2:18:26 AM	R19143
Surr: Dibromofluoromethane	89.5	70-130		%REC	20	6/10/2014 2:18:26 AM	R19143
Surr: Toluene-d8	100	70-130		%REC	20	6/10/2014 2:18:26 AM	R19143

Refer to the QC Summary report and 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 14 of 40
	E	Value 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 greater than 2.	
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 2nd Quarter

Collection Date: 6/2/2014 3:22:00 PM

Lab ID: 1406363-005

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.057	0.0020		mg/L	1	6/13/2014 3:09:42 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 3:09:42 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 3:09:42 PM	R19281
Copper	ND	0.0060		mg/L	1	6/13/2014 3:09:42 PM	R19281
Iron	0.20	0.020		mg/L	1	6/13/2014 3:09:42 PM	R19281
Manganese	0.28	0.0020	*	mg/L	1	6/13/2014 3:09:42 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 3:09:42 PM	R19281
Zinc	ND	0.010		mg/L	1	6/13/2014 3:09:42 PM	R19281
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.063	0.0020		mg/L	1	6/11/2014 3:08:18 PM	13601
Cadmium	ND	0.0020		mg/L	1	6/11/2014 3:08:18 PM	13601
Chromium	ND	0.0060		mg/L	1	6/11/2014 3:08:18 PM	13601
Copper	ND	0.0060		mg/L	1	6/11/2014 3:08:18 PM	13601
Iron	0.37	0.020	*	mg/L	1	6/11/2014 3:08:18 PM	13601
Manganese	0.29	0.0020	*	mg/L	1	6/11/2014 3:08:18 PM	13601
Silver	ND	0.0050		mg/L	1	6/12/2014 1:37:55 PM	13601
Zinc	ND	0.010		mg/L	1	6/12/2014 1:37:55 PM	13601
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 3:23:12 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 3:23:12 PM	R19364
Selenium	0.0064	0.0050		mg/L	5	6/18/2014 3:23:12 PM	R19364
Uranium	0.054	0.010	*	mg/L	10	6/25/2014 12:20:56 PM	R19508
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 5:24:24 PM	13601
Lead	ND	0.0010		mg/L	1	6/13/2014 3:45:24 PM	13601
Selenium	0.0055	0.0050		mg/L	5	6/17/2014 5:24:24 PM	13601
Uranium	0.052	0.0050	*	mg/L	5	6/17/2014 5:24:24 PM	13601
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 11:05:01 AM	13722
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Toluene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Ethylbenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Methyl tert-butyl ether (MTBE)	2000	50		µg/L	50	6/10/2014 11:15:06 AM	R19178
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2014 2nd Quarter

Collection Date: 6/2/2014 3:22:00 PM

Lab ID: 1406363-005

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Naphthalene	ND	2.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
2-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Acetone	ND	10		µg/L	1	6/10/2014 3:17:22 AM	R19143
Bromobenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Bromodichloromethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Bromoform	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Bromomethane	ND	3.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
2-Butanone	ND	10		µg/L	1	6/10/2014 3:17:22 AM	R19143
Carbon disulfide	ND	10		µg/L	1	6/10/2014 3:17:22 AM	R19143
Carbon Tetrachloride	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Chlorobenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Chloroethane	ND	2.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Chloroform	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Chloromethane	ND	3.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
2-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
4-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
cis-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Dibromochloromethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Dibromomethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,1-Dichloroethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,1-Dichloroethene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,2-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,3-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
2,2-Dichloropropane	ND	2.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,1-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Hexachlorobutadiene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
2-Hexanone	ND	10		µg/L	1	6/10/2014 3:17:22 AM	R19143
Isopropylbenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
4-Isopropyltoluene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
4-Methyl-2-pentanone	ND	10		µg/L	1	6/10/2014 3:17:22 AM	R19143
Methylene Chloride	ND	3.0		µg/L	1	6/10/2014 3:17:22 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**Date Reported: **7/8/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-29**Project:** 2014 2nd Quarter**Collection Date:** 6/2/2014 3:22:00 PM**Lab ID:** 1406363-005**Matrix:** AQUEOUS**Received Date:** 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
n-Butylbenzene	ND	3.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
n-Propylbenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
sec-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Styrene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
tert-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
trans-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Trichlorofluoromethane	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Vinyl chloride	ND	1.0		µg/L	1	6/10/2014 3:17:22 AM	R19143
Xylenes, Total	ND	1.5		µg/L	1	6/10/2014 3:17:22 AM	R19143
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	1	6/10/2014 3:17:22 AM	R19143
Surr: 4-Bromofluorobenzene	81.1	70-130		%REC	1	6/10/2014 3:17:22 AM	R19143
Surr: Dibromofluoromethane	84.1	70-130		%REC	1	6/10/2014 3:17:22 AM	R19143
Surr: Toluene-d8	98.6	70-130		%REC	1	6/10/2014 3:17:22 AM	R19143

Refer to the QC Summary report and 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 17 of 40
	E	Value 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 greater than 2.	
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 1:05:00 PM

Lab ID: 1406363-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	6/13/2014 3:13:24 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 3:13:24 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 3:13:24 PM	R19281
Copper	ND	0.0060		mg/L	1	6/13/2014 3:13:24 PM	R19281
Iron	2.3	0.10	*	mg/L	5	6/13/2014 3:18:43 PM	R19281
Manganese	0.082	0.0020	*	mg/L	1	6/13/2014 3:13:24 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 3:13:24 PM	R19281
Zinc	ND	0.010		mg/L	1	6/13/2014 3:13:24 PM	R19281
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.56	0.0020		mg/L	1	6/11/2014 3:12:08 PM	13601
Cadmium	ND	0.0020		mg/L	1	6/11/2014 3:12:08 PM	13601
Chromium	0.014	0.0060		mg/L	1	6/11/2014 3:12:08 PM	13601
Copper	ND	0.0060		mg/L	1	6/11/2014 3:12:08 PM	13601
Iron	5.8	0.20	*	mg/L	10	6/12/2014 1:41:43 PM	13601
Manganese	0.35	0.0020	*	mg/L	1	6/11/2014 3:12:08 PM	13601
Silver	ND	0.0050		mg/L	1	6/12/2014 1:39:55 PM	13601
Zinc	0.015	0.010		mg/L	1	6/12/2014 1:39:55 PM	13601
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/18/2014 3:38:14 PM	R19364
Lead	ND	0.0050		mg/L	5	6/18/2014 3:38:14 PM	R19364
Selenium	ND	0.010		mg/L	10	7/2/2014 5:26:18 PM	R19649
Uranium	0.051	0.010	*	mg/L	10	6/25/2014 12:23:20 PM	R19508
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/17/2014 5:29:24 PM	13601
Lead	0.0064	0.0010		mg/L	1	6/13/2014 3:50:24 PM	13601
Selenium	0.0055	0.0050		mg/L	5	6/17/2014 5:29:24 PM	13601
Uranium	0.048	0.0010	*	mg/L	1	6/13/2014 3:50:24 PM	13601
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	6/18/2014 12:16:58 PM	13740
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Toluene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Ethylbenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Methyl tert-butyl ether (MTBE)	2700	50		µg/L	50	6/10/2014 11:44:37 AM	R19178
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 1406363

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2014 2nd Quarter

Collection Date: 6/3/2014 1:05:00 PM

Lab ID: 1406363-006

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Naphthalene	ND	2.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
2-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Acetone	ND	10		µg/L	1	6/10/2014 4:16:17 AM	R19143
Bromobenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Bromodichloromethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Bromoform	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Bromomethane	ND	3.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
2-Butanone	ND	10		µg/L	1	6/10/2014 4:16:17 AM	R19143
Carbon disulfide	ND	10		µg/L	1	6/10/2014 4:16:17 AM	R19143
Carbon Tetrachloride	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Chlorobenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Chloroethane	ND	2.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Chloroform	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Chloromethane	ND	3.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
2-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
4-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
cis-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Dibromochloromethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Dibromomethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,1-Dichloroethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,1-Dichloroethene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,2-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,3-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
2,2-Dichloropropane	ND	2.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,1-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Hexachlorobutadiene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
2-Hexanone	ND	10		µg/L	1	6/10/2014 4:16:17 AM	R19143
Isopropylbenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
4-Isopropyltoluene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
4-Methyl-2-pentanone	ND	10		µg/L	1	6/10/2014 4:16:17 AM	R19143
Methylene Chloride	ND	3.0		µg/L	1	6/10/2014 4:16:17 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**Date Reported: **7/8/2014****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-30**Project:** 2014 2nd Quarter**Collection Date:** 6/3/2014 1:05:00 PM**Lab ID:** 1406363-006**Matrix:** AQUEOUS**Received Date:** 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
n-Butylbenzene	ND	3.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
n-Propylbenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
sec-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Styrene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
tert-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
trans-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Trichlorofluoromethane	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Vinyl chloride	ND	1.0		µg/L	1	6/10/2014 4:16:17 AM	R19143
Xylenes, Total	ND	1.5		µg/L	1	6/10/2014 4:16:17 AM	R19143
Surr: 1,2-Dichloroethane-d4	89.7	70-130		%REC	1	6/10/2014 4:16:17 AM	R19143
Surr: 4-Bromofluorobenzene	82.8	70-130		%REC	1	6/10/2014 4:16:17 AM	R19143
Surr: Dibromofluoromethane	82.7	70-130		%REC	1	6/10/2014 4:16:17 AM	R19143
Surr: Toluene-d8	102	70-130		%REC	1	6/10/2014 4:16:17 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-GROUP3-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:15:00 AM

Lab ID: 1406363-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Toluene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Ethylbenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Naphthalene	ND	2.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
2-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Acetone	ND	10		µg/L	1	6/10/2014 5:15:17 AM	R19143
Bromobenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Bromodichloromethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Bromoform	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Bromomethane	ND	3.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
2-Butanone	ND	10		µg/L	1	6/10/2014 5:15:17 AM	R19143
Carbon disulfide	ND	10		µg/L	1	6/10/2014 5:15:17 AM	R19143
Carbon Tetrachloride	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Chlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Chloroethane	ND	2.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Chloroform	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Chloromethane	ND	3.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
2-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
4-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
cis-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Dibromochloromethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Dibromomethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,1-Dichloroethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,1-Dichloroethene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,3-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
2,2-Dichloropropane	ND	2.0		µg/L	1	6/10/2014 5:15:17 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-GROUP3-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:15:00 AM

Lab ID: 1406363-007

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 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	6/10/2014 5:15:17 AM	R19143
Hexachlorobutadiene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
2-Hexanone	ND	10		µg/L	1	6/10/2014 5:15:17 AM	R19143
Isopropylbenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
4-Isopropyltoluene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
4-Methyl-2-pentanone	ND	10		µg/L	1	6/10/2014 5:15:17 AM	R19143
Methylene Chloride	ND	3.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
n-Butylbenzene	ND	3.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
n-Propylbenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
sec-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Styrene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
tert-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
trans-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Trichlorofluoromethane	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Vinyl chloride	ND	1.0		µg/L	1	6/10/2014 5:15:17 AM	R19143
Xylenes, Total	ND	1.5		µg/L	1	6/10/2014 5:15:17 AM	R19143
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	6/10/2014 5:15:17 AM	R19143
Surr: 4-Bromofluorobenzene	80.9	70-130		%REC	1	6/10/2014 5:15:17 AM	R19143
Surr: Dibromofluoromethane	82.6	70-130		%REC	1	6/10/2014 5:15:17 AM	R19143
Surr: Toluene-d8	95.1	70-130		%REC	1	6/10/2014 5:15:17 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 1406363

Date Reported: 7/8/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2014 2nd Quarter

Collection Date:

Lab ID: 1406363-008

Matrix: TRIP BLANK

Received Date: 6/6/2014 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	6/13/2014 2:17:15 AM	R19229
Surr: BFB	101	70.9-130		%REC	1	6/13/2014 2:17:15 AM	R19229
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Toluene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Ethylbenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Naphthalene	ND	2.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
2-Methylnaphthalene	ND	4.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Acetone	ND	10		µg/L	1	6/10/2014 5:44:46 AM	R19143
Bromobenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Bromodichloromethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Bromoform	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Bromomethane	ND	3.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
2-Butanone	ND	10		µg/L	1	6/10/2014 5:44:46 AM	R19143
Carbon disulfide	ND	10		µg/L	1	6/10/2014 5:44:46 AM	R19143
Carbon Tetrachloride	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Chlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Chloroethane	ND	2.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Chloroform	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Chloromethane	ND	3.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
2-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
4-Chlorotoluene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
cis-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Dibromochloromethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Dibromomethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,1-Dichloroethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,1-Dichloroethene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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 **1406363**

Date Reported: **7/8/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2014 2nd Quarter

Collection Date:

Lab ID: 1406363-008

Matrix: TRIP BLANK

Received Date: 6/6/2014 3:50:00 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	6/10/2014 5:44:46 AM	R19143
1,3-Dichloropropane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
2,2-Dichloropropane	ND	2.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,1-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Hexachlorobutadiene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
2-Hexanone	ND	10		µg/L	1	6/10/2014 5:44:46 AM	R19143
Isopropylbenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
4-Isopropyltoluene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
4-Methyl-2-pentanone	ND	10		µg/L	1	6/10/2014 5:44:46 AM	R19143
Methylene Chloride	ND	3.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
n-Butylbenzene	ND	3.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
n-Propylbenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
sec-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Styrene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
tert-Butylbenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
trans-1,2-DCE	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Trichlorofluoromethane	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Vinyl chloride	ND	1.0		µg/L	1	6/10/2014 5:44:46 AM	R19143
Xylenes, Total	ND	1.5		µg/L	1	6/10/2014 5:44:46 AM	R19143
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	1	6/10/2014 5:44:46 AM	R19143
Surr: 4-Bromofluorobenzene	77.0	70-130		%REC	1	6/10/2014 5:44:46 AM	R19143
Surr: Dibromofluoromethane	82.5	70-130		%REC	1	6/10/2014 5:44:46 AM	R19143
Surr: Toluene-d8	101	70-130		%REC	1	6/10/2014 5:44:46 AM	R19143

Refer to the QC Summary report and 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 greater than 2.
	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#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R19281			RunNo: 19281					
Prep Date:		Analysis Date: 6/13/2014			SeqNo: 557419		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		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19281		RunNo: 19281					
Prep Date:			Analysis Date: 6/13/2014		SeqNo: 557420		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	0.48	0.0020	0.5000	0	96.8	85	115			
Chromium	0.48	0.0060	0.5000	0	95.4	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Silver	0.096	0.0050	0.1000	0	95.8	85	115			
Zinc	0.49	0.010	0.5000	0	98.6	85	115			

Sample ID	1406363-006CMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	OW-30		Batch ID: R19281		RunNo: 19281					
Prep Date:			Analysis Date: 6/13/2014		SeqNo: 557447		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1660	94.4	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.5	70	130			
Chromium	0.49	0.0060	0.5000	0.003800	96.8	70	130			
Copper	0.50	0.0060	0.5000	0	100	70	130			
Manganese	0.57	0.0020	0.5000	0.08186	97.7	70	130			
Silver	0.092	0.0050	0.1000	0	92.1	70	130			
Zinc	0.51	0.010	0.5000	0.008570	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406363-006CMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	OW-30		Batch ID: R19281		RunNo: 19281					
Prep Date:			Analysis Date: 6/13/2014		SeqNo: 557448		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1660	95.7	70	130	0.978	20	
Cadmium	0.50	0.0020	0.5000	0	99.3	70	130	0.869	20	
Chromium	0.49	0.0060	0.5000	0.003800	97.1	70	130	0.307	20	
Copper	0.51	0.0060	0.5000	0	102	70	130	1.55	20	
Manganese	0.58	0.0020	0.5000	0.08186	99.0	70	130	1.10	20	
Silver	0.094	0.0050	0.1000	0	93.6	70	130	1.57	20	
Zinc	0.51	0.010	0.5000	0.008570	101	70	130	0.436	20	

Sample ID	1406363-006CMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	OW-30		Batch ID: R19281		RunNo: 19281					
Prep Date:			Analysis Date: 6/13/2014		SeqNo: 557450		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	4.8	0.10	2.500	2.339	100	70	130			

Sample ID	1406363-006CMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-30			Batch ID:	R19281		RunNo:	19281			
Prep Date:				Analysis Date:	6/13/2014		SeqNo:	557452		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Iron	4.5	0.10	2.500	2.339	88.2	70	130	6.26	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13601	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 13601			RunNo: 19195					
Prep Date:	6/10/2014	Analysis Date: 6/11/2014			SeqNo: 554950		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-13601		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 13601		RunNo: 19195					
Prep Date:	6/10/2014		Analysis Date: 6/11/2014		SeqNo: 554951		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	98.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Calcium	50	1.0	50.00	0	99.5	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.7	85	115			
Iron	0.54	0.020	0.5000	0	107	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	49	1.0	50.00	0	97.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	97.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19228		RunNo: 19228					
Prep Date:			Analysis Date: 6/12/2014		SeqNo: 556140		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			
Selenium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19228		RunNo: 19228					
Prep Date:			Analysis Date: 6/12/2014		SeqNo: 556141		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			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19228			RunNo: 19228					
Prep Date:		Analysis Date: 6/12/2014			SeqNo: 556142		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	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19228			RunNo: 19228					
Prep Date:		Analysis Date: 6/12/2014			SeqNo: 556143		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: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560092		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			
Lead	0.024	0.0010	0.02500	0	94.8	85	115			
Selenium	0.024	0.0010	0.02500	0	97.6	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.7	85	115			
Lead	0.023	0.0010	0.02500	0	93.9	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560094		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560095		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Sample ID	LCS RR		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19449		RunNo: 19449					
Prep Date:			Analysis Date: 6/20/2014		SeqNo: 562633		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	LCS RR		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19449		RunNo: 19449					
Prep Date:			Analysis Date: 6/20/2014		SeqNo: 562635		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	99.3	85	115			

Sample ID	MB RR		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R19449		RunNo: 19449					
Prep Date:			Analysis Date: 6/20/2014		SeqNo: 562637		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID MB RR	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R19449		RunNo: 19449							
Prep Date:	Analysis Date: 6/20/2014		SeqNo: 562639		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564692		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564693		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	99.1	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564694		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R19508		RunNo: 19508							
Prep Date:	Analysis Date: 6/25/2014		SeqNo: 564695		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R19649		RunNo: 19649							
Prep Date:	Analysis Date: 7/2/2014		SeqNo: 570332		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	95.1	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R19649	RunNo:	19649					
Prep Date:		Analysis Date:	7/2/2014	SeqNo:	570334	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.
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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LLLCS-13601	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	13601	RunNo:	19169					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554077	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	99.0	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.024	0.0010	0.02500	0	95.8	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	MB-13601	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	13601	RunNo:	19169					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554079	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13722		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 13722		RunNo: 19315					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558343		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-13722		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 13722		RunNo: 19315					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558344		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	98.8	80	120			

Sample ID	MB-13740		SampType:	MBLK		TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW		Batch ID:	13740		RunNo:	19350				
Prep Date:	6/17/2014		Analysis Date:	6/18/2014		SeqNo:	559471		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	ND	0.00020									

Sample ID	LCS-13740		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 13740		RunNo: 19350					
Prep Date:	6/17/2014		Analysis Date: 6/18/2014		SeqNo: 559472		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	97.8	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19165	RunNo:	19165					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553915	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:	R19165	RunNo:	19165					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553916	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	97.4	90	110			
Chloride	4.6	0.50	5.000	0	92.0	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.9	90	110			
Sulfate	9.4	0.50	10.00	0	93.5	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19191	RunNo:	19191					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554760	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:	R19191	RunNo:	19191					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554761	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	91.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19526	RunNo:	19526					
Prep Date:		Analysis Date:	6/25/2014	SeqNo:	565235	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.	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 greater than 2.
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#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID: R19526			RunNo: 19526					
Prep Date:		Analysis Date: 6/25/2014			SeqNo: 565236		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	96.8	90	110			

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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13583		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554465		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		103	62.7	145			

Sample ID	LCS-13583		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554466		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	97.4	78.6	146			
Surr: DNOP	0.46		0.5000		91.3	62.7	145			

Sample ID	LCSD-13583		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554468		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	78.6	146	9.06	26.5	
Surr: DNOP	0.44		0.5000		88.0	62.7	145	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556148	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		94.8	70.9	130			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556149	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	93.6	80	120			
Surr: BFB	21		20.00		105	70.9	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R19143	RunNo:	19143					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553150	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 greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R19143	RunNo:	19143					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553150	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		95.4	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.8	70	130			
Surr: Dibromofluoromethane	8.8		10.00		88.2	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID	100ng lcsb	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R19143	RunNo:	19143					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553166	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.3	70	130			
Toluene	18	1.0	20.00	0	89.6	80	120			
Chlorobenzene	19	1.0	20.00	0	94.1	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 greater than 2.
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#: 1406363

08-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	100ng lcsb		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R19143			RunNo: 19143				
Prep Date:	Analysis Date: 6/9/2014			SeqNo: 553166		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	107	82.6	131			
Trichloroethene (TCE)	18	1.0	20.00	0	89.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.1	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.3	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R19178			RunNo: 19178					
Prep Date:		Analysis Date: 6/10/2014			SeqNo: 554424		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	9.0		10.00		90.3	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.4	70	130			
Surr: Dibromofluoromethane	8.3		10.00		83.3	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R19178			RunNo: 19178					
Prep Date:		Analysis Date: 6/10/2014			SeqNo: 554426		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	8.4		10.00		83.9	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.4	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 greater than 2.
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
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: 1406363

RcptNo: 1

Received by/date:

mg *06/06/14*

Logged By: Michelle Garcia

6/6/2014 3:50:00 PM

Michelle Garcia

Completed By: Michelle Garcia

6/9/2014 9:12:57 AM

Michelle Garcia

Reviewed By:

[Signature]

06/09/14

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☒ *mg 06/09/14*

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:

14

(<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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			