

AP - 111

**ANNUAL GW
MONITORING REPORT
(11 of 29)**

2016



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

April 15, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling

OrderNo.: 1603278

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/5/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: Quarterly GW Sampling

Collection Date: 3/3/2016 4:30:00 PM

Lab ID: 1603278-001

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH	
Diesel Range Organics (DRO)	13	0.69	1.0		mg/L	1	3/8/2016 1:52:46 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 1:52:46 PM	24127
Surr: DNOP	93.6	0	70-141		%Rec	1	3/8/2016 1:52:46 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.46	0.025	0.050		mg/L	1	3/7/2016 3:35:59 PM	A32624
Surr: BFB	292	0	49.5-130	S	%Rec	1	3/7/2016 3:35:59 PM	A32624
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.71	0.11	0.50		mg/L	5	3/7/2016 5:35:57 PM	R32638
Chloride	2900	14	250		mg/L	500	3/19/2016 3:48:15 AM	A32919
Bromide	1.0	0.16	0.50		mg/L	5	3/7/2016 5:35:57 PM	R32638
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/7/2016 5:35:57 PM	R32638
Sulfate	4.2	0.32	2.5		mg/L	5	3/7/2016 5:35:57 PM	R32638
Nitrate+Nitrite as N	ND	1.7	4.0		mg/L	20	3/8/2016 2:28:14 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	11	0.066	0.10	*	mg/L	50	3/23/2016 5:30:04 PM	C33001
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:35:25 PM	C32891
Calcium	160	1.3	5.0		mg/L	5	3/18/2016 6:37:15 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:35:25 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 6:35:25 PM	C32891
Iron	11	0.45	1.0	*	mg/L	50	3/23/2016 5:30:04 PM	C33001
Magnesium	54	0.013	1.0		mg/L	1	3/18/2016 6:35:25 PM	C32891
Manganese	1.7	0.0016	0.010	*	mg/L	5	3/18/2016 6:37:15 PM	C32891
Potassium	7.2	0.18	1.0		mg/L	1	3/18/2016 6:35:25 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:35:25 PM	C32891
Sodium	2100	4.8	50		mg/L	50	3/23/2016 5:30:04 PM	C33001
Zinc	0.0092	0.0028	0.010	J	mg/L	1	3/18/2016 6:35:25 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	11	0.021	0.040	*	mg/L	20	3/21/2016 1:48:34 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:25:28 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:25:28 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:25:28 PM	24150
Iron	13	0.14	0.40	*	mg/L	20	3/21/2016 1:48:34 PM	24150
Manganese	1.9	0.030	0.040	*	mg/L	20	3/21/2016 1:48:34 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:25:28 PM	24150
Zinc	0.011	0.0039	0.010		mg/L	1	3/18/2016 4:25:28 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0017	0.00065	0.010	J	mg/L	10	3/31/2016 2:35:55 PM	B33223

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

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.00039	0.00013	0.0025	J	mg/L	5	3/29/2016 5:51:54 PM	B33154
Selenium	0.0066	0.0019	0.010	J	mg/L	10	3/31/2016 2:35:55 PM	B33223
Uranium	0.000093	0.000024	0.0025	J	mg/L	5	3/29/2016 5:51:54 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	ND	0.0029	0.010		mg/L	10	3/24/2016 2:35:26 PM	24248
Lead	0.010	0.00024	0.0025		mg/L	5	3/24/2016 2:32:25 PM	24248
Selenium	0.0071	0.0012	0.010	J	mg/L	10	3/24/2016 2:35:26 PM	24248
Uranium	0.00068	0.000025	0.0025	J	mg/L	5	3/24/2016 2:32:25 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:36:10 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Carbazole	28	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121

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EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
3,3'-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Fluorene	10	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1-Methylnaphthalene	110	6.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Methylnaphthalene	37	7.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Naphthalene	45	5.9	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:19:15 PM	24121
Phenanthrene	7.9	6.8	10	J	µg/L	1	3/13/2016 9:19:15 PM	24121
Phenol	ND	5.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121

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Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

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Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Surr: 2-Fluorophenol	41.6	0	4.63-113		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: Phenol-d5	37.2	0	4.13-124		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: 2,4,6-Tribromophenol	92.0	0	5.14-132		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: Nitrobenzene-d5	68.9	0	9.13-140		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: 2-Fluorobiphenyl	70.9	0	10.8-132		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: 4-Terphenyl-d14	63.6	0	12.9-107		%Rec	1	3/13/2016 9:19:15 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
Benzene	19	0.096	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Ethylbenzene	64	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,4-Trimethylbenzene	66	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Naphthalene	73	0.083	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1-Methylnaphthalene	140	2.0	40		µg/L	10	3/8/2016 10:25:48 PM	R32660
2-Methylnaphthalene	53	0.16	4.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Chloroform	0.17	0.089	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
cis-1,2-DCE	0.78	0.12	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660

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EPA METHOD 8260B: VOLATILES							Analyst: DJF	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1-Dichloroethane	1.1	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1-Dichloroethene	0.32	0.076	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Isopropylbenzene	24	0.098	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
4-Isopropyltoluene	7.4	0.14	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Methylene Chloride	0.19	0.063	3.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
n-Butylbenzene	7.4	0.16	3.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
n-Propylbenzene	30	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
sec-Butylbenzene	13	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
tert-Butylbenzene	0.36	0.096	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Vinyl chloride	2.4	0.063	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Xylenes, Total	0.69	0.32	1.5	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
Surr: 1,2-Dichloroethane-d4	92.9	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-39

Project: Quarterly GW Sampling

Collection Date: 3/3/2016 4:30:00 PM

Lab ID: 1603278-001

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
Surr: 4-Bromofluorobenzene	116	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660
Surr: Dibromofluoromethane	91.1	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660
Surr: Toluene-d8	102	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 11:00:00 AM

Lab ID: 1603278-003

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/8/2016 2:56:38 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 2:56:38 PM	24127
Surr: DNOP	95.9	0	70-141		%Rec	1	3/8/2016 2:56:38 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.045	0.025	0.050	J	mg/L	1	3/8/2016 12:58:07 PM	A32657
Surr: BFB	90.7	0	49.5-130		%Rec	1	3/8/2016 12:58:07 PM	A32657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.018	0.0013	0.0020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:39:02 PM	C32891
Copper	0.0053	0.0040	0.0060	J	mg/L	1	3/23/2016 5:31:52 PM	C33001
Iron	ND	0.0091	0.020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Manganese	0.019	0.00032	0.0020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:39:02 PM	C32891
Zinc	0.0093	0.0028	0.010	J	mg/L	1	3/18/2016 6:39:02 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.018	0.0011	0.0020		mg/L	1	3/18/2016 4:35:13 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:35:13 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:35:13 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:35:13 PM	24150
Iron	ND	0.0072	0.020		mg/L	1	3/18/2016 4:35:13 PM	24150
Manganese	0.020	0.0015	0.0020		mg/L	1	3/18/2016 4:35:13 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:35:13 PM	24150
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 4:35:13 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0012	0.000065	0.0010		mg/L	1	3/28/2016 8:34:14 PM	C33120
Lead	ND	0.000026	0.00050		mg/L	1	3/28/2016 8:34:14 PM	C33120
Selenium	0.0011	0.00097	0.0050	J	mg/L	5	4/6/2016 4:33:33 PM	A33361
Uranium	0.017	0.0000048	0.00050		mg/L	1	3/28/2016 8:34:14 PM	C33120
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0010	0.00029	0.0010		mg/L	1	3/23/2016 5:35:23 PM	24248
Lead	ND	0.00024	0.0025		mg/L	5	3/24/2016 2:38:26 PM	24248
Selenium	0.0025	0.00062	0.0050	J	mg/L	5	3/24/2016 2:38:26 PM	24248
Uranium	0.016	0.000025	0.0025		mg/L	5	3/24/2016 2:38:26 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:38:14 AM	24156

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 11:00:00 AM

Lab ID: 1603278-003

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
Benzene	ND	0.096	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Methyl tert-butyl ether (MTBE)	35	0.21	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dichloroethane (EDC)	0.80	0.053	1.0	J	µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Acetone	ND	0.88	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/10/2016 6:11:25 PM	R32729
2-Butanone	ND	0.32	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/10/2016 6:11:25 PM	R32729
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 11:00:00 AM

Lab ID: 1603278-003

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/9/2016 1:15:19 AM	R32660
Surr: 1,2-Dichloroethane-d4	99.6	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660
Surr: Dibromofluoromethane	94.9	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660
Surr: Toluene-d8	97.6	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 12:20:00 PM

Lab ID: 1603278-004

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH	
Diesel Range Organics (DRO)	2.9	0.69	1.0		mg/L	1	3/8/2016 3:17:59 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 3:17:59 PM	24127
Surr: DNOP	90.7	0	70-141		%Rec	1	3/8/2016 3:17:59 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	27	0.51	1.0		mg/L	20	3/7/2016 4:25:10 PM	A32624
Surr: BFB	102	0	49.5-130		%Rec	20	3/7/2016 4:25:10 PM	A32624
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	1.9	0.0066	0.010		mg/L	5	3/18/2016 6:44:40 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:43:00 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:43:00 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 6:43:00 PM	C32891
Iron	4.3	0.045	0.10	*	mg/L	5	3/18/2016 6:44:40 PM	C32891
Manganese	2.1	0.0016	0.010	*	mg/L	5	3/18/2016 6:44:40 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:43:00 PM	C32891
Zinc	0.010	0.0028	0.010		mg/L	1	3/18/2016 6:43:00 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	1.9	0.0053	0.010		mg/L	5	3/21/2016 1:50:40 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:37:15 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:37:15 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:37:15 PM	24150
Iron	4.6	0.036	0.10	*	mg/L	5	3/21/2016 1:50:40 PM	24150
Manganese	2.0	0.0076	0.010	*	mg/L	5	3/21/2016 1:50:40 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:37:15 PM	24150
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 4:37:15 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0082	0.000065	0.0010		mg/L	1	3/28/2016 8:43:29 PM	C33120
Lead	0.00012	0.000026	0.00050	J	mg/L	1	3/28/2016 8:43:29 PM	C33120
Selenium	0.0048	0.00097	0.0050	J	mg/L	5	4/6/2016 4:36:36 PM	A33361
Uranium	0.0065	0.0000048	0.00050		mg/L	1	3/28/2016 8:43:29 PM	C33120
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0078	0.00029	0.0010		mg/L	1	3/23/2016 5:38:24 PM	24248
Lead	ND	0.00024	0.0025		mg/L	5	3/24/2016 2:41:27 PM	24248
Selenium	0.0062	0.0012	0.010	J	mg/L	10	3/24/2016 2:50:32 PM	24248
Uranium	0.0060	0.000025	0.0025		mg/L	5	3/24/2016 2:41:27 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000054	0.000053	0.00020	J	mg/L	1	3/10/2016 11:40:19 AM	24156

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 12:20:00 PM

Lab ID: 1603278-004

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
Benzene	6500	48	500		µg/L	500	3/9/2016 1:43:30 AM	R32660
Toluene	ND	4.5	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Ethylbenzene	230	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Methyl tert-butyl ether (MTBE)	680	11	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,4-Trimethylbenzene	ND	5.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,3,5-Trimethylbenzene	ND	5.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dichloroethane (EDC)	ND	2.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Naphthalene	17	4.2	100	J	µg/L	50	3/9/2016 2:11:45 AM	R32660
1-Methylnaphthalene	30	10	200	J	µg/L	50	3/9/2016 2:11:45 AM	R32660
2-Methylnaphthalene	ND	7.9	200		µg/L	50	3/9/2016 2:11:45 AM	R32660
Acetone	ND	44	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromobenzene	ND	4.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromodichloromethane	ND	4.9	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromoform	ND	5.1	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromomethane	ND	39	150		µg/L	50	3/10/2016 5:13:55 PM	R32729
2-Butanone	ND	16	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Carbon disulfide	ND	30	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Carbon Tetrachloride	ND	5.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chlorobenzene	ND	5.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chloroethane	ND	7.3	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chloroform	ND	4.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chloromethane	ND	11	150		µg/L	50	3/10/2016 5:13:55 PM	R32729
2-Chlorotoluene	ND	20	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
4-Chlorotoluene	ND	6.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
cis-1,2-DCE	ND	6.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
cis-1,3-Dichloropropene	ND	5.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dibromo-3-chloropropane	ND	7.7	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Dibromochloromethane	ND	4.3	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Dibromomethane	ND	6.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dichlorobenzene	ND	20	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Dichlorodifluoromethane	ND	16	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1-Dichloroethane	ND	5.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1-Dichloroethene	ND	3.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dichloropropane	ND	2.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,3-Dichloropropane	ND	7.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
2,2-Dichloropropane	ND	6.0	100		µg/L	50	3/9/2016 2:11:45 AM	R32660

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 12:20:00 PM

Lab ID: 1603278-004

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
1,1-Dichloropropene	ND	6.7	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Hexachlorobutadiene	ND	9.9	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
2-Hexanone	ND	18	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Isopropylbenzene	ND	4.9	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
4-Isopropyltoluene	ND	7.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
4-Methyl-2-pentanone	ND	7.5	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Methylene Chloride	11	3.1	150	J	µg/L	50	3/9/2016 2:11:45 AM	R32660
n-Butylbenzene	ND	8.0	150		µg/L	50	3/9/2016 2:11:45 AM	R32660
n-Propylbenzene	ND	6.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
sec-Butylbenzene	ND	5.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Styrene	ND	4.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
tert-Butylbenzene	ND	4.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,2,2-Tetrachloroethane	ND	5.3	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
trans-1,2-DCE	ND	20	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
trans-1,3-Dichloropropene	ND	4.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,1-Trichloroethane	ND	3.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,2-Trichloroethane	ND	3.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Trichlorofluoromethane	ND	4.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,3-Trichloropropane	ND	5.6	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Vinyl chloride	ND	3.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Xylenes, Total	ND	16	75		µg/L	50	3/9/2016 2:11:45 AM	R32660
Surr: 1,2-Dichloroethane-d4	93.2	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660
Surr: Dibromofluoromethane	92.7	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660
Surr: Toluene-d8	105	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660

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	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 1:15:00 PM

Lab ID: 1603278-005

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: KJH	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/8/2016 3:39:10 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 3:39:10 PM	24127
Surr: DNOP	95.1	0	70-141		%Rec	1	3/8/2016 3:39:10 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	4.2	0.13	0.25		mg/L	5	3/7/2016 5:39:14 PM	A32624
Surr: BFB	92.3	0	49.5-130		%Rec	5	3/7/2016 5:39:14 PM	A32624
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.063	0.0013	0.0020		mg/L	1	3/18/2016 6:46:40 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:46:40 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:46:40 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/23/2016 5:33:54 PM	C33001
Iron	0.34	0.0091	0.020	*	mg/L	1	3/18/2016 6:46:40 PM	C32891
Manganese	0.31	0.00032	0.0020	*	mg/L	1	3/18/2016 6:46:40 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:46:40 PM	C32891
Zinc	0.015	0.0028	0.010		mg/L	1	3/18/2016 6:46:40 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.064	0.0011	0.0020		mg/L	1	3/18/2016 4:38:53 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:38:53 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:38:53 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:38:53 PM	24150
Iron	0.38	0.0072	0.020	*	mg/L	1	3/18/2016 4:38:53 PM	24150
Manganese	0.32	0.0015	0.0020	*	mg/L	1	3/18/2016 4:38:53 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:38:53 PM	24150
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 4:38:53 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0015	0.000065	0.0010		mg/L	1	3/28/2016 8:46:33 PM	C33120
Lead	ND	0.000026	0.00050		mg/L	1	3/28/2016 8:46:33 PM	C33120
Selenium	0.0031	0.00097	0.0050	J	mg/L	5	3/29/2016 5:54:57 PM	B33154
Uranium	0.049	0.000024	0.0025	*	mg/L	5	3/29/2016 5:54:57 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0015	0.00029	0.0010		mg/L	1	3/23/2016 5:41:24 PM	24248
Lead	ND	0.00024	0.0025		mg/L	5	3/24/2016 2:53:33 PM	24248
Selenium	0.0029	0.00062	0.0050	J	mg/L	5	3/24/2016 2:53:33 PM	24248
Uranium	0.053	0.000025	0.0025	*	mg/L	5	3/24/2016 2:53:33 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:42:23 AM	24156

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 1:15:00 PM

Lab ID: 1603278-005

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
Benzene	ND	0.48	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Toluene	ND	0.45	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Methyl tert-butyl ether (MTBE)	3200	11	50		µg/L	50	3/9/2016 2:39:56 AM	R32660
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dichloroethane (EDC)	1.6	0.26	5.0	J	µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Naphthalene	ND	0.42	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/9/2016 3:08:10 AM	R32660
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/9/2016 3:08:10 AM	R32660
Acetone	ND	4.4	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromobenzene	ND	0.40	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromoform	ND	0.51	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 5:42:31 PM	R32729
2-Butanone	ND	1.6	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Carbon disulfide	ND	3.0	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chloroethane	ND	0.73	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chloroform	ND	0.44	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 5:42:31 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Dibromomethane	ND	0.60	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/9/2016 3:08:10 AM	R32660

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: Quarterly GW Sampling

Collection Date: 3/4/2016 1:15:00 PM

Lab ID: 1603278-005

Matrix: AQUEOUS

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
2-Hexanone	ND	1.8	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Methylene Chloride	1.1	0.31	15	J	µg/L	5	3/9/2016 3:08:10 AM	R32660
n-Butylbenzene	ND	0.80	15		µg/L	5	3/9/2016 3:08:10 AM	R32660
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Styrene	ND	0.48	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/9/2016 3:08:10 AM	R32660
Surr: 1,2-Dichloroethane-d4	93.5	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660
Surr: Dibromofluoromethane	93.0	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660
Surr: Toluene-d8	102	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Quarterly GW Sampling

Collection Date:

Lab ID: 1603278-006

Matrix: TRIP BLANK

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
Benzene	ND	0.096	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Acetone	ND	0.88	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/10/2016 6:40:15 PM	R32729
2-Butanone	ND	0.32	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/10/2016 6:40:15 PM	R32729
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603278

Date Reported: 4/15/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Quarterly GW Sampling

Collection Date:

Lab ID: 1603278-006

Matrix: TRIP BLANK

Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/9/2016 3:36:25 AM	R32660
Surr: 1,2-Dichloroethane-d4	90.2	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660
Surr: 4-Bromofluorobenzene	108	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660
Surr: Dibromofluoromethane	89.7	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660
Surr: Toluene-d8	96.0	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-C	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	C32891	RunNo:	32891					
Prep Date:		Analysis Date:	3/18/2016	SeqNo:	1008301	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-C	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	C32891	RunNo:	32891					
Prep Date:		Analysis Date:	3/18/2016	SeqNo:	1008302	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	99.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.0	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.49	0.0020	0.5000	0	97.8	85	115			
Potassium	50	1.0	50.00	0	99.4	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID	LLCS-C	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	C32891	RunNo:	32891					
Prep Date:		Analysis Date:	3/18/2016	SeqNo:	1008303	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	103	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Calcium	0.50	1.0	0.5000	0	99.4	50	150			J
Chromium	0.0053	0.0060	0.006000	0	87.8	50	150			J
Copper	0.0068	0.0060	0.006000	0	114	50	150			
Iron	0.021	0.020	0.02000	0	103	50	150			
Magnesium	0.51	1.0	0.5000	0	102	50	150			J

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID LLLCS-C	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: C32891			RunNo: 32891						
Prep Date:	Analysis Date: 3/18/2016			SeqNo: 1008303		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Potassium	0.58	1.0	0.5000	0	115	50	150			J
Silver	0.0038	0.0050	0.005000	0	76.2	50	150			J
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Sample ID LCS-C	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: C32891			RunNo: 32891						
Prep Date:	Analysis Date: 3/18/2016			SeqNo: 1008305		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			

Sample ID MB-C	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: C33001			RunNo: 33001						
Prep Date:	Analysis Date: 3/23/2016			SeqNo: 1012812		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID LCS-C	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: C33001			RunNo: 33001						
Prep Date:	Analysis Date: 3/23/2016			SeqNo: 1012813		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	95.5	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			

Sample ID LLLCS-C	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: C33001			RunNo: 33001						
Prep Date:	Analysis Date: 3/23/2016			SeqNo: 1012814		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0026	0.0020	0.002000	0	130	50	150			
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Iron	0.022	0.020	0.02000	0	108	50	150			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	LLLCS-C	SampType:	LCSLL	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	C33001	RunNo:	33001					
Prep Date:		Analysis Date:	3/23/2016	SeqNo:	1012814	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.57	1.0	0.5000	0	115	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID MB-24150	SampType: MBLK		TestCode: EPA Method 200.7: Total Metals							
Client ID: PBW	Batch ID: 24150		RunNo: 32831							
Prep Date: 3/9/2016	Analysis Date: 3/16/2016		SeqNo: 1006645		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID LCS-24150	SampType: LCS		TestCode: EPA Method 200.7: Total Metals							
Client ID: LCSW	Batch ID: 24150		RunNo: 32831							
Prep Date: 3/9/2016	Analysis Date: 3/16/2016		SeqNo: 1006646		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	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.9	85	115			
Silver	0.094	0.0050	0.1000	0	93.7	85	115			
Zinc	0.50	0.010	0.5000	0	99.3	85	115			

Sample ID LLCS-24150	SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals							
Client ID: BatchQC	Batch ID: 24150		RunNo: 32831							
Prep Date: 3/9/2016	Analysis Date: 3/16/2016		SeqNo: 1006647		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.0	50	150			J
Chromium	0.0074	0.0060	0.006000	0	123	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0019	0.0020	0.002000	0	93.0	50	150			J
Silver	0.0043	0.0050	0.005000	0	86.2	50	150			J
Zinc	0.0061	0.010	0.005000	0	122	50	150			J

Sample ID MB-24150	SampType: MBLK		TestCode: EPA Method 200.7: Total Metals							
Client ID: PBW	Batch ID: 24150		RunNo: 32891							
Prep Date: 3/9/2016	Analysis Date: 3/18/2016		SeqNo: 1008286		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	LCS-24150		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 24150		RunNo: 32891					
Prep Date:	3/9/2016		Analysis Date: 3/18/2016		SeqNo: 1008287		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.48	0.0060	0.5000	0	96.8	85	115			

Sample ID	LLCS-24150		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 24150		RunNo: 32891					
Prep Date:	3/9/2016		Analysis Date: 3/18/2016		SeqNo: 1008288		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0058	0.0060	0.006000	0	97.3	50	150			J

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: C33120			RunNo: 33120						
Prep Date:	Analysis Date: 3/28/2016			SeqNo: 1016768		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			
Lead	0.012	0.00050	0.01250	0	98.1	85	115			
Uranium	0.012	0.00050	0.01250	0	95.1	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: C33120			RunNo: 33120						
Prep Date:	Analysis Date: 3/28/2016			SeqNo: 1016770		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00051	0.00050	0.0005000	0	103	50	150			
Uranium	0.00048	0.00050	0.0005000	0	96.8	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: C33120			RunNo: 33120						
Prep Date:	Analysis Date: 3/28/2016			SeqNo: 1016772		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B33154			RunNo: 33154						
Prep Date:	Analysis Date: 3/29/2016			SeqNo: 1018089		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	95.4	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.011	0.00050	0.01250	0	91.8	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B33154			RunNo: 33154						
Prep Date:	Analysis Date: 3/29/2016			SeqNo: 1018090		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00095	0.0010	0.001000	0	94.9	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	91.1	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: B33154				RunNo: 33154					
Prep Date:	Analysis Date: 3/29/2016				SeqNo: 1018091		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: LCSW	Batch ID: B33223				RunNo: 33223					
Prep Date:	Analysis Date: 3/31/2016				SeqNo: 1020326		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	0.025	0.0010	0.02500	0	102	85	115			

Sample ID LLLCS	SampType: LCSLL				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: B33223				RunNo: 33223					
Prep Date:	Analysis Date: 3/31/2016				SeqNo: 1020327		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	108	50	150			
Selenium	0.0011	0.0010	0.001000	0	109	50	150			

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: B33223				RunNo: 33223					
Prep Date:	Analysis Date: 3/31/2016				SeqNo: 1020328		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: A33361				RunNo: 33361					
Prep Date:	Analysis Date: 4/6/2016				SeqNo: 1025223		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			

Sample ID LLLCS	SampType: LCSLL				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: A33361				RunNo: 33361					
Prep Date:	Analysis Date: 4/6/2016				SeqNo: 1025226		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A33361		RunNo: 33361					
Prep Date:			Analysis Date: 4/6/2016		SeqNo: 1025226		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0010	0.0010	0.001000	0	102	50	150			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	A33361		RunNo:	33361				
Prep Date:		Analysis Date:	4/6/2016		SeqNo:	1025228	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-24248		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 24248		RunNo: 32847					
Prep Date:	3/15/2016		Analysis Date: 3/16/2016		SeqNo: 1006784		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	0.0000054	0.00050								J

Sample ID	MSLCS-24248		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 24248		RunNo: 32847					
Prep Date:	3/15/2016		Analysis Date: 3/16/2016		SeqNo: 1006788		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	96.3	85	115			
Uranium	0.012	0.00050	0.01250	0	99.9	85	115			

Sample ID	MSLLLCs-24248		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 24248		RunNo: 32847					
Prep Date:	3/15/2016		Analysis Date: 3/16/2016		SeqNo: 1006793		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	112	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00090	0.0010	0.001000	0	89.5	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-24156		SampType: mblk		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 24156		RunNo: 32702					
Prep Date:	3/9/2016		Analysis Date: 3/10/2016		SeqNo: 1000942		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	0.000079	0.00020								J

Sample ID	LCS-24156		SampType: lcs		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 24156		RunNo: 32702					
Prep Date:	3/9/2016		Analysis Date: 3/10/2016		SeqNo: 1000945		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.00020	0.005000	0	109	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBW		Batch ID:	R32638		RunNo:	32638			
Prep Date:			Analysis Date:	3/7/2016		SeqNo:	998657		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:	R32638		RunNo:	32638			
Prep Date:			Analysis Date:	3/7/2016		SeqNo:	998658		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Bromide	2.6	0.10	2.500	0	104	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBW		Batch ID:	R32663		RunNo:	32663			
Prep Date:			Analysis Date:	3/8/2016		SeqNo:	999366		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:	R32663		RunNo:	32663			
Prep Date:			Analysis Date:	3/8/2016		SeqNo:	999367		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBW		Batch ID:	A32919		RunNo:	32919			
Prep Date:			Analysis Date:	3/18/2016		SeqNo:	1009533		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.10	0.50								J

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: A32919		RunNo: 32919					
Prep Date:			Analysis Date: 3/18/2016		SeqNo: 1009534		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	1603278-001BMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MKTf-39		Batch ID: 24127		RunNo: 32647					
Prep Date:	3/8/2016		Analysis Date: 3/8/2016		SeqNo: 998923		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	17	1.0	5.000	13.36	79.9	59.4	160			
Surr: DNOP	0.47		0.5000		93.8	70	141			

Sample ID	1603278-001BMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	MKTf-39		Batch ID:	24127		RunNo:	32647				
Prep Date:	3/8/2016		Analysis Date:	3/8/2016		SeqNo:	998924		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	16	1.0	5.000	13.36	54.7	59.4	160	7.52	20	S	
Surr: DNOP	0.47		0.5000		93.4	70	141	0	0		

Sample ID	LCS-24127		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 24127		RunNo: 32647					
Prep Date:	3/8/2016		Analysis Date: 3/8/2016		SeqNo: 998925		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	71.3	139			
Surr: DNOP	0.48		0.5000		95.6	70	141			

Sample ID	MB-24127	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 24127			RunNo: 32647					
Prep Date:	3/8/2016	Analysis Date: 3/8/2016			SeqNo: 998926		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	0.91		1.000		91.0	70	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: A32624		RunNo: 32624							
Prep Date:	Analysis Date: 3/7/2016		SeqNo: 998181		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		94.6	49.5	130			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: A32624		RunNo: 32624							
Prep Date:	Analysis Date: 3/7/2016		SeqNo: 998182		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.6	80	120			
Surr: BFB	21		20.00		106	49.5	130			

Sample ID 1603278-004AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: OW-14	Batch ID: A32624		RunNo: 32624							
Prep Date:	Analysis Date: 3/7/2016		SeqNo: 998186		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	1.0	10.00	26.74	77.5	70	130			
Surr: BFB	450		400.0		113	49.5	130			

Sample ID 1603278-004AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: OW-14	Batch ID: A32624		RunNo: 32624							
Prep Date:	Analysis Date: 3/7/2016		SeqNo: 998187		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	36	1.0	10.00	26.74	90.8	70	130	3.78	20	
Surr: BFB	460		400.0		114	49.5	130	0	0	

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: A32657		RunNo: 32657							
Prep Date:	Analysis Date: 3/8/2016		SeqNo: 999136		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.9	49.5	130			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: A32657		RunNo: 32657							
Prep Date:	Analysis Date: 3/8/2016		SeqNo: 999137		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID: A32657			RunNo: 32657					
Prep Date:		Analysis Date: 3/8/2016			SeqNo: 999137		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.56	0.050	0.5000	0	111	80	120			
Surr: BFB	23		20.00		115	49.5	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R32660			RunNo: 32660					
Prep Date:		Analysis Date: 3/8/2016			SeqNo: 999254	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R32660			RunNo: 32660						
Prep Date:	Analysis Date: 3/8/2016			SeqNo: 999254		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	0.19	3.0								J
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		99.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	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: R32660			RunNo: 32660						
Prep Date:	Analysis Date: 3/8/2016			SeqNo: 999255		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	22	1.0	20.00	0	111	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R32660			RunNo: 32660					
Prep Date:	Analysis Date: 3/8/2016			SeqNo: 999255		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	105	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID	100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R32729			RunNo: 32729					
Prep Date:		Analysis Date: 3/10/2016			SeqNo: 1001574		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R32729			RunNo: 32729					
Prep Date:	Analysis Date: 3/10/2016			SeqNo: 1001575		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromomethane	ND	3.0								
Chloromethane	ND	3.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	12		10.00		120	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	mb-24121	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	24121	RunNo:	32760					
Prep Date:	3/8/2016	Analysis Date:	3/13/2016	SeqNo:	1003941	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	mb-24121		SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID: 24121			RunNo: 32760				
Prep Date:	3/8/2016		Analysis Date: 3/13/2016			SeqNo: 1003941	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	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603278

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	Ics-24121		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSW		Batch ID: 24121			RunNo: 32760				
Prep Date:	3/8/2016		Analysis Date: 3/13/2016			SeqNo: 1003943		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	40.2	107			
4-Chloro-3-methylphenol	250	10	200.0	0	125	48.2	107			S
2-Chlorophenol	220	10	200.0	0	110	42.5	106			S
1,4-Dichlorobenzene	110	10	100.0	0	109	31.6	111			
2,4-Dinitrotoluene	78	10	100.0	0	78.1	33.6	86.5			
N-Nitrosodi-n-propylamine	110	10	100.0	0	108	44	106			S
4-Nitrophenol	180	10	200.0	0	88.4	25.5	109			
Pentachlorophenol	170	20	200.0	0	84.6	38.8	97.8			
Phenol	210	10	200.0	0	107	22.7	116			
Pyrene	100	10	100.0	0	103	29.3	138			
1,2,4-Trichlorobenzene	110	10	100.0	0	115	35.3	123			
Surr: 2-Fluorophenol	180		200.0		88.4	4.63	113			
Surr: Phenol-d5	200		200.0		101	4.13	124			
Surr: 2,4,6-Tribromophenol	230		200.0		113	5.14	132			
Surr: Nitrobenzene-d5	96		100.0		96.0	9.13	140			
Surr: 2-Fluorobiphenyl	90		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	99		100.0		99.4	12.9	107			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1603278

RcptNo: 1

Received by/date:

JA 03/05/14

Logged By: Ashley Gallegos

3/5/2016 9:05:00 AM

Completed By: Ashley Gallegos

3/7/2016 8:37:42 AM

Reviewed By:

03/07/16

AS

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?

AS Yes ☒

No ☒

9. Was preservative added to bottles?

317 Yes ☒

No ☒

AS 317 NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved bottles checked for pH:

9
(<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:

For 300 analysis: added 0.4 mL of H_2SO_4 to -0010 2 of.

18. Cooler Information

For acceptable pH. 317

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.

Address: ALLUP REFINERY

City: 12 GIANT CROSSING ROAD

State: 3 ALLUP, NM 87301

Phone #: 505-722-0231

Fax #: CHERYL JOHNSON @

Website: WNR.COM

Package: Level 4 (Full Validation)

Standard

Accreditation

NELAP

Other

EDD (Type) EXCEL

Date

Time

Matrix

Sample Request ID

1/16 1630 WATER MKTF-39

1 LITER AMBER-1

250 ML AMBER-1

125 ML PLASTIC-1

125 ML PLASTIC-1

500 ML PLASTIC-1

500 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

125 ML PLASTIC-1

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

QUARTERLY GW SAMPLING

Project #:

Project Manager:

CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Container Type and #

Preservative Type

HEAL No.

1603278

40 ML

VOA-6

1 LITER

AMBER-1

250 ML

AMBER-1

125 ML

PLASTIC-1

125 ML

PLASTIC-1

500 ML

PLASTIC-1

500 ML

PLASTIC-1

125 ML

PLASTIC-1

125 ML

PLASTIC-1

125 ML

PLASTIC-1

125 ML

PLASTIC-1

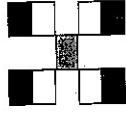
125 ML

PLASTIC-1

125 ML

PLASTIC-1

125 ML



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
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Remarks:

Per TP will resample BW - EP-2 Inlet At 03/07/16

Received by: [Signature] Date: 3/4/16 Time: 4:30

Received by: [Signature] Date: 03/05/16 Time: 0905



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

July 05, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2nd Quarter-OW Wells

OrderNo.: 1606426

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/8/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 7:30:00 AM

Lab ID: 1606426-001

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 7:30:00 AM

Lab ID: 1606426-001

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 12:20:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	92.5	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909
Surr: Dibromofluoromethane	96.2	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909
Surr: Toluene-d8	99.0	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909

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

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	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 8:45:00 AM

Lab ID: 1606426-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	4.5	0.69	1.0		mg/L	1	6/9/2016 2:08:21 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:08:21 PM	25749
Surr: DNOP	99.8	0	70-141		%Rec	1	6/9/2016 2:08:21 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	27	0.51	1.0		mg/L	20	6/13/2016 4:58:22 PM	A34874
Surr: BFB	114	0	66.4-120		%Rec	20	6/13/2016 4:58:22 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	2.2	0.0066	0.010	*	mg/L	5	6/10/2016 4:13:55 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:12:17 PM	A34847
Calcium	93	0.26	1.0		mg/L	1	6/10/2016 4:12:17 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:12:17 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:12:17 PM	A34847
Iron	4.9	0.091	0.20	*	mg/L	10	6/13/2016 4:03:46 PM	A34876
Magnesium	26	0.013	1.0		mg/L	1	6/10/2016 4:12:17 PM	A34847
Manganese	2.3	0.0016	0.010	*	mg/L	5	6/10/2016 4:13:55 PM	A34847
Potassium	0.30	0.18	1.0	J	mg/L	1	6/10/2016 4:12:17 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:12:17 PM	A34847
Sodium	390	0.48	5.0		mg/L	5	6/10/2016 4:13:55 PM	A34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 4:12:17 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	2.2	0.011	0.020	*	mg/L	10	6/20/2016 3:46:38 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:10:01 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:10:01 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:10:01 PM	25859
Iron	5.1	0.072	0.20	*	mg/L	10	6/20/2016 3:46:38 PM	25859
Manganese	2.4	0.015	0.020	*	mg/L	10	6/20/2016 3:46:38 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:10:01 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:10:01 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.012	0.0014	0.010	*	mg/L	10	6/16/2016 2:00:18 PM	A34971
Lead	ND	0.00017	0.00050		mg/L	1	6/14/2016 6:44:54 PM	C34915
Selenium	0.022	0.011	0.050	J	mg/L	50	6/16/2016 2:03:22 PM	A34971
Uranium	0.0068	0.000051	0.00050		mg/L	1	6/14/2016 6:44:54 PM	C34915
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.016	0.0058	0.020	J*	mg/L	20	6/17/2016 6:11:45 PM	25859
Lead	0.00020	0.000047	0.00050	J	mg/L	1	6/16/2016 8:38:51 PM	25859
Selenium	0.017	0.0025	0.020	J	mg/L	20	6/17/2016 6:11:45 PM	25859

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

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 8:45:00 AM

Lab ID: 1606426-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Uranium	0.0074	0.0000049	0.00050		mg/L	1	6/16/2016 8:38:51 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000068	0.000053	0.00020	J	mg/L	1	6/13/2016 3:50:49 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	7800	9.6	100		µg/L	100	6/15/2016 12:43:00 AM	A34909
Toluene	2.6	1.2	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Ethylbenzene	230	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Methyl tert-butyl ether (MTBE)	620	2.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,4-Trimethylbenzene	8.0	1.1	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
1,3,5-Trimethylbenzene	1.7	1.2	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Naphthalene	19	0.93	20	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
1-Methylnaphthalene	33	2.0	40	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Methylnaphthalene	3.3	1.6	40	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Acetone	ND	49	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromobenzene	ND	0.98	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromodichloromethane	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromoform	ND	1.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromomethane	ND	7.8	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Butanone	ND	7.4	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Carbon disulfide	ND	6.0	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chlorobenzene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chloroethane	ND	1.9	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chloroform	ND	0.89	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chloromethane	ND	2.1	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
cis-1,2-DCE	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Dibromochloromethane	ND	0.87	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Dibromomethane	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/15/2016 1:06:00 AM	A34909

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

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Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 8:45:00 AM

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Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1-Dichloroethene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Hexanone	ND	8.4	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Isopropylbenzene	9.6	1.0	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
4-Isopropyltoluene	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Methylene Chloride	ND	1.9	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
n-Butylbenzene	ND	1.6	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
n-Propylbenzene	11	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
sec-Butylbenzene	3.1	1.2	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Styrene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Vinyl chloride	ND	2.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Xylenes, Total	12	3.7	15	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	95.1	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909
Surr: Dibromofluoromethane	94.6	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909
Surr: Toluene-d8	97.3	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 10:30:00 AM

Lab ID: 1606426-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 2:36:25 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:36:25 PM	25749
Surr: DNOP	102	0	70-141		%Rec	1	6/9/2016 2:36:25 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	4.0	0.25	0.50		mg/L	10	6/13/2016 5:21:44 PM	A34874
Surr: BFB	109	0	66.4-120		%Rec	10	6/13/2016 5:21:44 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.070	0.0013	0.0020		mg/L	1	6/10/2016 4:15:59 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:15:59 PM	A34847
Calcium	60	0.26	1.0		mg/L	1	6/10/2016 4:15:59 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:15:59 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:15:59 PM	A34847
Iron	0.31	0.0091	0.020	*	mg/L	1	6/10/2016 4:15:59 PM	A34847
Magnesium	14	0.013	1.0		mg/L	1	6/10/2016 4:15:59 PM	A34847
Manganese	0.33	0.00032	0.0020	*	mg/L	1	6/10/2016 4:15:59 PM	A34847
Potassium	0.55	0.18	1.0	J	mg/L	1	6/10/2016 4:15:59 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:15:59 PM	A34847
Sodium	390	0.48	5.0		mg/L	5	6/10/2016 4:17:55 PM	A34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 4:15:59 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.072	0.0011	0.0020		mg/L	1	6/20/2016 3:48:32 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:13:38 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:13:38 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:13:38 PM	25859
Iron	0.36	0.0072	0.020	*	mg/L	1	6/20/2016 3:48:32 PM	25859
Manganese	0.33	0.0015	0.0020	*	mg/L	1	6/20/2016 3:48:32 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:13:38 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:13:38 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0032	0.00069	0.0050	J	mg/L	5	6/16/2016 2:06:25 PM	A34971
Lead	ND	0.00017	0.00050		mg/L	1	6/14/2016 7:00:22 PM	C34915
Selenium	0.0080	0.0021	0.010	J	mg/L	10	6/16/2016 2:09:29 PM	A34971
Uranium	0.054	0.00026	0.0025	*	mg/L	5	6/16/2016 2:06:25 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0039	0.0015	0.0050	J	mg/L	5	6/17/2016 6:16:54 PM	25859
Lead	ND	0.000047	0.00050		mg/L	1	6/16/2016 8:41:51 PM	25859
Selenium	0.0068	0.00062	0.0050		mg/L	5	6/17/2016 6:16:54 PM	25859

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 10:30:00 AM

Lab ID: 1606426-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Uranium	0.053	0.000025	0.0025	*	mg/L	5	6/17/2016 6:16:54 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000061	0.000053	0.00020	J	mg/L	1	6/13/2016 3:52:56 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.48	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Toluene	ND	0.59	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Ethylbenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Methyl tert-butyl ether (MTBE)	3100	11	50		µg/L	50	6/15/2016 2:39:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Naphthalene	ND	0.46	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
1-Methylnaphthalene	ND	1.0	20		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/15/2016 3:02:00 AM	A34909
Acetone	ND	25	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromobenzene	ND	0.49	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromoform	ND	0.51	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromomethane	ND	3.9	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Butanone	ND	3.7	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Carbon disulfide	ND	3.0	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chloroethane	ND	0.96	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chloroform	ND	0.44	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chloromethane	ND	1.1	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Dibromomethane	ND	0.60	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 10:30:00 AM

Lab ID: 1606426-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Hexanone	ND	4.2	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Isopropylbenzene	ND	0.52	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Methylene Chloride	ND	0.94	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
n-Butylbenzene	ND	0.80	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
n-Propylbenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Styrene	ND	0.55	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Vinyl chloride	ND	0.98	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Xylenes, Total	ND	1.8	7.5		µg/L	5	6/15/2016 3:02:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.3	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909
Surr: 4-Bromofluorobenzene	99.4	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909
Surr: Dibromofluoromethane	94.7	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909
Surr: Toluene-d8	98.9	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 11:10:00 AM

Lab ID: 1606426-004

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 3:04:33 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 3:04:33 PM	25749
Surr: DNOP	104	0	70-141		%Rec	1	6/9/2016 3:04:33 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	4.0	0.25	0.50		mg/L	10	6/13/2016 5:45:06 PM	A34874
Surr: BFB	109	0	66.4-120		%Rec	10	6/13/2016 5:45:06 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.10	0.0013	0.0020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Calcium	74	0.26	1.0		mg/L	1	6/10/2016 4:27:31 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:27:31 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:27:31 PM	A34847
Iron	0.062	0.0091	0.020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Magnesium	17	0.013	1.0		mg/L	1	6/10/2016 4:27:31 PM	A34847
Manganese	0.043	0.00032	0.0020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Potassium	0.46	0.18	1.0	J	mg/L	1	6/10/2016 4:27:31 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:27:31 PM	A34847
Sodium	370	0.48	5.0		mg/L	5	6/10/2016 4:29:25 PM	A34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 4:27:31 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.11	0.0011	0.0020		mg/L	1	6/20/2016 3:55:54 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:17:29 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:17:29 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:17:29 PM	25859
Iron	0.11	0.0072	0.020		mg/L	1	6/20/2016 3:55:54 PM	25859
Manganese	0.045	0.0015	0.0020		mg/L	1	6/20/2016 3:55:54 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:17:29 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:17:29 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	6/16/2016 2:12:32 PM	A34971
Lead	0.00020	0.00017	0.00050	J	mg/L	1	6/14/2016 7:05:30 PM	C34915
Selenium	0.0095	0.0042	0.020	J	mg/L	20	6/16/2016 2:15:36 PM	A34971
Uranium	0.047	0.00026	0.0025	*	mg/L	5	6/16/2016 2:12:32 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0042	0.0015	0.0050	J	mg/L	5	6/17/2016 6:27:11 PM	25859
Lead	0.00030	0.000047	0.00050	J	mg/L	1	6/16/2016 8:44:52 PM	25859
Selenium	0.0090	0.00062	0.0050		mg/L	5	6/17/2016 6:27:11 PM	25859

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 11:10:00 AM

Lab ID: 1606426-004

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Uranium	0.046	0.000025	0.0025	*	mg/L	5	6/17/2016 6:27:11 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000062	0.000053	0.00020	J	mg/L	1	6/13/2016 3:55:03 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	1.2	0.48	5.0	J	µg/L	5	6/15/2016 3:48:00 AM	A34909
Toluene	ND	0.59	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Ethylbenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Methyl tert-butyl ether (MTBE)	3100	11	50		µg/L	50	6/15/2016 3:25:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Naphthalene	ND	0.46	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
1-Methylnaphthalene	ND	1.0	20		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/15/2016 3:48:00 AM	A34909
Acetone	ND	25	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromobenzene	ND	0.49	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromoform	ND	0.51	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromomethane	ND	3.9	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Butanone	ND	3.7	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Carbon disulfide	ND	3.0	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chloroethane	ND	0.96	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chloroform	ND	0.44	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chloromethane	ND	1.1	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Dibromomethane	ND	0.60	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 11:10:00 AM

Lab ID: 1606426-004

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Hexanone	ND	4.2	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Isopropylbenzene	ND	0.52	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Methylene Chloride	ND	0.94	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
n-Butylbenzene	ND	0.80	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
n-Propylbenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
sec-Butylbenzene	0.64	0.62	5.0	J	µg/L	5	6/15/2016 3:48:00 AM	A34909
Styrene	ND	0.55	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Vinyl chloride	ND	0.98	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Xylenes, Total	ND	1.8	7.5		µg/L	5	6/15/2016 3:48:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.0	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909
Surr: 4-Bromofluorobenzene	97.0	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909
Surr: Dibromofluoromethane	93.6	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909
Surr: Toluene-d8	99.1	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 1:45:00 PM

Lab ID: 1606426-005

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:01:00 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:01:00 PM	25749
Surr: DNOP	103	0	70-141		%Rec	1	6/9/2016 4:01:00 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.052	0.025	0.050		mg/L	1	6/13/2016 6:08:36 PM	A34874
Surr: BFB	108	0	66.4-120		%Rec	1	6/13/2016 6:08:36 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.020	0.0013	0.0020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Calcium	9.4	0.26	1.0		mg/L	1	6/10/2016 4:31:20 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:31:20 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:31:20 PM	A34847
Iron	ND	0.0091	0.020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Magnesium	1.4	0.013	1.0		mg/L	1	6/10/2016 4:31:20 PM	A34847
Manganese	0.020	0.00032	0.0020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Potassium	1.3	0.18	1.0		mg/L	1	6/10/2016 4:31:20 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:31:20 PM	A34847
Sodium	310	0.48	5.0		mg/L	5	6/10/2016 4:33:23 PM	A34847
Zinc	0.014	0.0028	0.010		mg/L	1	6/10/2016 4:31:20 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.021	0.0011	0.0020		mg/L	1	6/20/2016 3:57:48 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:31:14 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:31:14 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:31:14 PM	25859
Iron	ND	0.0072	0.020		mg/L	1	6/17/2016 6:31:14 PM	25859
Manganese	0.020	0.0015	0.0020		mg/L	1	6/20/2016 3:57:48 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:31:14 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:31:14 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0019	0.00069	0.0050	J	mg/L	5	6/16/2016 2:24:49 PM	A34971
Lead	ND	0.00017	0.00050		mg/L	1	6/14/2016 7:10:39 PM	C34915
Selenium	0.0035	0.0011	0.0050	J	mg/L	5	6/16/2016 2:24:49 PM	A34971
Uranium	0.018	0.000051	0.00050		mg/L	1	6/14/2016 7:10:39 PM	C34915
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0019	0.0015	0.0050	J	mg/L	5	6/17/2016 6:47:49 PM	25859
Lead	ND	0.000047	0.00050		mg/L	1	6/16/2016 8:47:52 PM	25859
Selenium	0.0025	0.00062	0.0050	J	mg/L	5	6/17/2016 6:47:49 PM	25859

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 1:45:00 PM

Lab ID: 1606426-005

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Uranium	0.019	0.0000049	0.00050		mg/L	1	6/16/2016 8:47:52 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000060	0.000053	0.00020	J	mg/L	1	6/13/2016 3:57:02 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Methyl tert-butyl ether (MTBE)	36	0.21	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dichloroethane (EDC)	0.75	0.12	1.0	J	µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 1:45:00 PM

Lab ID: 1606426-005

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 4:12:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.2	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909
Surr: 4-Bromofluorobenzene	97.8	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909
Surr: Dibromofluoromethane	94.6	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909
Surr: Toluene-d8	96.8	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-01

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 1:35:00 PM

Lab ID: 1606426-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:29:21 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:29:21 PM	25749
Surr: DNOP	104	0	70-141		%Rec	1	6/9/2016 4:29:21 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 6:32:00 PM	A34874
Surr: BFB	111	0	66.4-120		%Rec	1	6/13/2016 6:32:00 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.24	0.023	0.10		mg/L	1	6/9/2016 10:09:24 PM	R34830
Chloride	74	0.55	10		mg/L	20	6/9/2016 10:21:49 PM	R34830
Bromide	0.25	0.032	0.10		mg/L	1	6/20/2016 11:18:57 PM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 10:09:24 PM	R34830
Sulfate	170	1.3	10		mg/L	20	6/9/2016 10:21:49 PM	R34830
Nitrate+Nitrite as N	0.49	0.42	1.0	J	mg/L	5	6/10/2016 2:17:39 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.072	0.0013	0.0020		mg/L	1	6/10/2016 4:35:17 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:35:17 PM	A34847
Calcium	6.7	0.26	1.0		mg/L	1	6/10/2016 4:35:17 PM	A34847
Chromium	0.0019	0.0018	0.0060	J	mg/L	1	6/10/2016 4:35:17 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:35:17 PM	A34847
Iron	0.82	0.0091	0.020	*	mg/L	1	6/10/2016 4:35:17 PM	A34847
Magnesium	0.60	0.013	1.0	J	mg/L	1	6/10/2016 4:35:17 PM	A34847
Manganese	0.092	0.00032	0.0020	*	mg/L	1	6/10/2016 4:35:17 PM	A34847
Potassium	0.88	0.18	1.0	J	mg/L	1	6/10/2016 4:35:17 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:35:17 PM	A34847
Sodium	330	0.48	5.0		mg/L	5	6/10/2016 4:37:16 PM	A34847
Zinc	0.022	0.0028	0.010		mg/L	1	6/10/2016 4:35:17 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.13	0.0011	0.0020		mg/L	1	6/20/2016 3:59:49 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:35:13 PM	25859
Chromium	0.014	0.0022	0.0060		mg/L	1	6/20/2016 3:59:49 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:35:13 PM	25859
Iron	4.8	0.072	0.20	*	mg/L	10	6/20/2016 4:01:38 PM	25859
Manganese	0.22	0.0015	0.0020	*	mg/L	1	6/20/2016 3:59:49 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:35:13 PM	25859
Zinc	0.042	0.0039	0.010		mg/L	1	6/20/2016 3:59:49 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0024	0.00069	0.0050	J	mg/L	5	6/16/2016 2:27:53 PM	A34971

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-01

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 1:35:00 PM

Lab ID: 1606426-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.0048	0.00017	0.00050		mg/L	1	6/14/2016 7:15:47 PM	C34915
Selenium	0.0046	0.00021	0.0010		mg/L	1	6/14/2016 7:15:47 PM	C34915
Uranium	0.041	0.00026	0.0025	*	mg/L	5	6/16/2016 2:27:53 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0022	0.00029	0.0010		mg/L	1	6/16/2016 8:50:53 PM	25859
Lead	0.011	0.000047	0.00050		mg/L	1	6/16/2016 8:50:53 PM	25859
Selenium	0.0047	0.00062	0.0050	J	mg/L	5	6/17/2016 6:52:57 PM	25859
Uranium	0.041	0.000025	0.0025	*	mg/L	5	6/17/2016 6:52:57 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000083	0.000053	0.00020	J	mg/L	1	6/13/2016 3:59:03 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	0.13	0.096	1.0	J	µg/L	1	6/15/2016 4:35:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Methyl tert-butyl ether (MTBE)	1.0	0.21	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-01

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 1:35:00 PM

Lab ID: 1606426-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 4:35:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	92.3	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1606426**

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-01

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 1:35:00 PM

Lab ID: 1606426-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909
Surr: Dibromofluoromethane	92.0	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909
Surr: Toluene-d8	98.5	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 2:10:00 PM

Lab ID: 1606426-007

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:57:56 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:57:56 PM	25749
Surr: DNOP	101	0	70-141		%Rec	1	6/9/2016 4:57:56 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.047	0.025	0.050	J	mg/L	1	6/13/2016 8:29:20 PM	A34874
Surr: BFB	115	0	66.4-120		%Rec	1	6/13/2016 8:29:20 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.22	0.023	0.10		mg/L	1	6/9/2016 10:34:14 PM	R34830
Chloride	960	2.7	50		mg/L	100	6/20/2016 11:43:46 PM	A35046
Bromide	0.94	0.032	0.10		mg/L	1	6/20/2016 11:31:21 PM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 10:34:14 PM	R34830
Sulfate	200	1.3	10		mg/L	20	6/9/2016 10:46:39 PM	R34830
Nitrate+Nitrite as N	0.49	0.42	1.0	J	mg/L	5	6/10/2016 2:30:04 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.065	0.0013	0.0020		mg/L	1	6/10/2016 4:39:02 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:39:02 PM	A34847
Calcium	120	1.3	5.0		mg/L	5	6/10/2016 4:41:00 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:39:02 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:39:02 PM	A34847
Iron	ND	0.0091	0.020		mg/L	1	6/10/2016 4:39:02 PM	A34847
Magnesium	22	0.013	1.0		mg/L	1	6/10/2016 4:39:02 PM	A34847
Manganese	0.11	0.00032	0.0020	*	mg/L	1	6/10/2016 4:39:02 PM	A34847
Potassium	2.0	0.18	1.0		mg/L	1	6/10/2016 4:39:02 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:39:02 PM	A34847
Sodium	720	0.96	10		mg/L	10	6/13/2016 4:05:46 PM	A34876
Zinc	0.13	0.0028	0.010		mg/L	1	6/10/2016 4:39:02 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.064	0.0011	0.0020		mg/L	1	6/20/2016 4:03:28 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:38:57 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:38:57 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:38:57 PM	25859
Iron	0.010	0.0072	0.020	J	mg/L	1	6/20/2016 4:03:28 PM	25859
Manganese	0.11	0.0015	0.0020	*	mg/L	1	6/20/2016 4:03:28 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:38:57 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:38:57 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	6/16/2016 2:30:56 PM	A34971

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 2:10:00 PM

Lab ID: 1606426-007

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.00022	0.00017	0.00050	J	mg/L	1	6/14/2016 7:20:56 PM	C34915
Selenium	0.016	0.00021	0.0010		mg/L	1	6/14/2016 7:20:56 PM	C34915
Uranium	0.058	0.00026	0.0025	*	mg/L	5	6/16/2016 2:30:56 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0023	0.0015	0.0050	J	mg/L	5	6/17/2016 6:58:05 PM	25859
Lead	0.00024	0.000047	0.00050	J	mg/L	1	6/16/2016 8:53:53 PM	25859
Selenium	0.015	0.00062	0.0050		mg/L	5	6/17/2016 6:58:05 PM	25859
Uranium	0.057	0.000025	0.0025	*	mg/L	5	6/17/2016 6:58:05 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000066	0.000053	0.00020	J	mg/L	1	6/13/2016 4:01:04 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Methyl tert-butyl ether (MTBE)	33	0.21	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dichloroethane (EDC)	0.51	0.12	1.0	J	µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
cis-1,2-DCE	0.31	0.12	1.0	J	µg/L	1	6/15/2016 4:59:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 2:10:00 PM

Lab ID: 1606426-007

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1-Dichloroethane	1.1	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1-Dichloroethene	0.90	0.11	1.0	J	µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 4:59:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.8	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2016 2nd Quarter-OW Wells

Collection Date: 6/6/2016 2:10:00 PM

Lab ID: 1606426-007

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909
Surr: Dibromofluoromethane	94.8	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909
Surr: Toluene-d8	101	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2016 2nd Quarter-OW Wells

Collection Date:

Lab ID: 1606426-008

Matrix: TRIP BLANK

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606426

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2016 2nd Quarter-OW Wells

Collection Date:

Lab ID: 1606426-008

Matrix: TRIP BLANK

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 5:22:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.5	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909
Surr: 4-Bromofluorobenzene	98.7	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909
Surr: Dibromofluoromethane	94.5	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909
Surr: Toluene-d8	97.8	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	MB-A		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A34847		RunNo:	34847			
Prep Date:			Analysis Date:	6/10/2016		SeqNo:	1075722	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-A		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A34847		RunNo:	34847			
Prep Date:			Analysis Date:	6/10/2016		SeqNo:	1075723	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	99.5	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Calcium	49	1.0	50.00	0	97.9	85	115			
Chromium	0.50	0.0060	0.5000	0	99.5	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Magnesium	50	1.0	50.00	0	99.0	85	115			
Manganese	0.49	0.0020	0.5000	0	98.5	85	115			
Potassium	48	1.0	50.00	0	95.4	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	97.8	85	115			
Zinc	0.49	0.010	0.5000	0	98.6	85	115			

Sample ID	LLCS-A		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A34847		RunNo:	34847			
Prep Date:			Analysis Date:	6/10/2016		SeqNo:	1075724	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	106	50	150			
Cadmium	0.0022	0.0020	0.002000	0	112	50	150			
Calcium	0.52	1.0	0.5000	0	105	50	150			J
Chromium	0.0060	0.0060	0.006000	0	100	50	150			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	LLLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A34847		RunNo: 34847					
Prep Date:			Analysis Date: 6/10/2016		SeqNo: 1075724		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0054	0.0060	0.006000	0	89.2	50	150			J
Iron	0.020	0.020	0.02000	0	98.4	50	150			J
Magnesium	0.53	1.0	0.5000	0	106	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Potassium	0.49	1.0	0.5000	0	98.1	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.4	50	150			J
Sodium	0.51	1.0	0.5000	0	103	50	150			J
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Sample ID	MB-A	SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	PBW	Batch ID:	A34876		RunNo:	34876				
Prep Date:		Analysis Date:	6/13/2016		SeqNo:	1077108	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A34876		RunNo: 34876					
Prep Date:			Analysis Date: 6/13/2016		SeqNo: 1077109		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Sodium	49	1.0	50.00	0	98.9	85	115			

Sample ID	LLLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A34876		RunNo: 34876					
Prep Date:			Analysis Date: 6/13/2016		SeqNo: 1077110		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.018	0.020	0.02000	0	92.0	50	150			J
Sodium	0.50	1.0	0.5000	0	101	50	150			J

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	MB-25859		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 25859		RunNo: 34992					
Prep Date:	6/15/2016		Analysis Date: 6/17/2016		SeqNo: 1081603		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-25859		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 25859		RunNo: 34992					
Prep Date:	6/15/2016		Analysis Date: 6/17/2016		SeqNo: 1081604		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	98.5	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.4	85	115			
Copper	0.50	0.0060	0.5000	0	99.9	85	115			
Iron	0.48	0.020	0.5000	0	96.7	85	115			
Manganese	0.48	0.0020	0.5000	0	96.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.5	85	115			

Sample ID	LLLCS-25859		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 25859		RunNo: 34992					
Prep Date:	6/15/2016		Analysis Date: 6/17/2016		SeqNo: 1081605		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	103	50	150			
Cadmium	0.0023	0.0020	0.002000	0	115	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.8	50	150			J
Copper	0.0067	0.0060	0.006000	0	112	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0022	0.0020	0.002000	0	109	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0062	0.010	0.005000	0	123	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: C34915			RunNo: 34915						
Prep Date:	Analysis Date: 6/14/2016			SeqNo: 1078549		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.011	0.00050	0.01250	0	91.3	85	115			
Selenium	0.023	0.0010	0.02500	0	91.6	85	115			
Uranium	0.012	0.00050	0.01250	0	93.9	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: C34915			RunNo: 34915						
Prep Date:	Analysis Date: 6/14/2016			SeqNo: 1078550		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00048	0.00050	0.0005000	0	95.5	50	150			J
Selenium	0.00090	0.0010	0.001000	0	90.1	50	150			J
Uranium	0.00047	0.00050	0.0005000	0	95.0	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: C34915			RunNo: 34915						
Prep Date:	Analysis Date: 6/14/2016			SeqNo: 1078551		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: A34971			RunNo: 34971						
Prep Date:	Analysis Date: 6/16/2016			SeqNo: 1080463		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	105	85	115			
Selenium	0.026	0.0010	0.02500	0	105	85	115			
Uranium	0.012	0.00050	0.01250	0	97.4	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: A34971			RunNo: 34971						
Prep Date:	Analysis Date: 6/16/2016			SeqNo: 1080464		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	112	50	150			
Selenium	0.0012	0.0010	0.001000	0	121	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	A34971	RunNo:	34971					
Prep Date:		Analysis Date:	6/16/2016	SeqNo:	1080465	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	MB-25859		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	25859		RunNo:	34984			
Prep Date:	6/15/2016		Analysis Date:	6/16/2016		SeqNo:	1081261	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID	MSLCS-25859		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	25859		RunNo:	34984			
Prep Date:	6/15/2016		Analysis Date:	6/16/2016		SeqNo:	1081262	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.3	85	115			
Lead	0.012	0.00050	0.01250	0	98.5	85	115			
Uranium	0.012	0.00050	0.01250	0	97.6	85	115			

Sample ID	MSLLCS-25859		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	25859		RunNo:	34984			
Prep Date:	6/15/2016		Analysis Date:	6/16/2016		SeqNo:	1081263	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00096	0.0010	0.001000	0	96.5	50	150			J
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID	MB-25859		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	25859		RunNo:	34995			
Prep Date:	6/15/2016		Analysis Date:	6/17/2016		SeqNo:	1081667	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID	MSLCS-25859		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	25859		RunNo:	34995			
Prep Date:	6/15/2016		Analysis Date:	6/17/2016		SeqNo:	1081668	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.022	0.0010	0.02500	0	90.0	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	MSLLCS-25859		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 25859		RunNo: 34995					
Prep Date:	6/15/2016		Analysis Date: 6/17/2016		SeqNo: 1081669		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00079	0.0010	0.001000	0	79.4	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	MB-25806		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 25806		RunNo: 34868					
Prep Date:	6/13/2016		Analysis Date: 6/13/2016		SeqNo: 1076845		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000090	0.00020								J

Sample ID	LCS-25806			SampType:	LCS		TestCode:	EPA Method 245.1: Mercury			
Client ID:	LCSW			Batch ID:	25806		RunNo:	34868			
Prep Date:	6/13/2016			Analysis Date:	6/13/2016		SeqNo:	1076846		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0050	0.00020	0.005000	0	99.0	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R34830			RunNo: 34830						
Prep Date:	Analysis Date: 6/9/2016			SeqNo: 1075096		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R34830			RunNo: 34830						
Prep Date:	Analysis Date: 6/9/2016			SeqNo: 1075097		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	4.9	0.50	5.000	0	98.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: A35046			RunNo: 35046						
Prep Date:	Analysis Date: 6/20/2016			SeqNo: 1083722		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: A35046			RunNo: 35046						
Prep Date:	Analysis Date: 6/20/2016			SeqNo: 1083723		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.5	90	110			
Bromide	2.4	0.10	2.500	0	97.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	LCS-25749		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 25749		RunNo: 34795					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074145		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	111	71.3	139			
Surr: DNOP	0.53		0.5000		105	70	141			

Sample ID	MB-25749		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 25749		RunNo: 34795					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074146		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	0.83		1.000		83.1	70	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	A34874	RunNo:	34874					
Prep Date:		Analysis Date:	6/13/2016	SeqNo:	1076985	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	22		20.00		109	66.4	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	A34874	RunNo:	34874					
Prep Date:		Analysis Date:	6/13/2016	SeqNo:	1076986	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.9	80	120			
Surr: BFB	23		20.00		115	66.4	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	100NG LCS2		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: A34909		RunNo: 34909					
Prep Date:			Analysis Date: 6/14/2016		SeqNo: 1078463		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.0	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Chlorobenzene	20	1.0	20.00	0	98.8	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	102	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.7	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Sample ID	rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: A34909			RunNo: 34909					
Prep Date:		Analysis Date: 6/14/2016			SeqNo: 1078464		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	0.22	2.0								J
1-Methylnaphthalene	0.31	4.0								J
2-Methylnaphthalene	0.36	4.0								J
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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: A34909			RunNo: 34909						
Prep Date:	Analysis Date: 6/14/2016			SeqNo: 1078464	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	1.2	10								J
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.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606426

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID rb2	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: A34909		RunNo: 34909							
Prep Date:	Analysis Date: 6/14/2016		SeqNo: 1078464		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	9.6		10.00		95.5	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.1	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.4	70	130			
Surr: Toluene-d8	9.6		10.00		95.9	70	130			

Sample ID 1606426-002AMS2	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: OW-14	Batch ID: A34909		RunNo: 34909							
Prep Date:	Analysis Date: 6/15/2016		SeqNo: 1078482		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8500	10	200.0	7264	639	70	130			ES
Toluene	190	10	200.0	2.580	95.2	70	130			
Chlorobenzene	190	10	200.0	0	95.3	70	130			
1,1-Dichloroethene	200	10	200.0	0	98.3	70	130			
Trichloroethene (TCE)	180	10	200.0	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	100		100.0		99.9	70	130			
Surr: Dibromofluoromethane	94		100.0		93.7	70	130			
Surr: Toluene-d8	97		100.0		97.1	70	130			

Sample ID 1606426-002AMSD2	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: OW-14	Batch ID: A34909		RunNo: 34909							
Prep Date:	Analysis Date: 6/15/2016		SeqNo: 1078493		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8300	10	200.0	7264	536	70	130	2.46	20	ES
Toluene	190	10	200.0	2.580	92.6	70	130	2.76	20	
Chlorobenzene	190	10	200.0	0	94.0	70	130	1.31	20	
1,1-Dichloroethene	190	10	200.0	0	92.9	70	130	5.60	20	
Trichloroethene (TCE)	170	10	200.0	0	86.2	70	130	2.37	20	
Surr: 1,2-Dichloroethane-d4	95		100.0		94.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		99.9	70	130	0	0	
Surr: Dibromofluoromethane	92		100.0		92.4	70	130	0	0	
Surr: Toluene-d8	98		100.0		97.7	70	130	0	0	

Qualifiers:

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

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1606426**

RcptNo: 1

Received by/date:

AT

06/08/16

Logged By: **Ashley Gallegos**

6/8/2016 2:18:00 PM

Completed By: **Ashley Gallegos**

6/8/2016 5:57:58 PM

Reviewed By:

[Signature]

06/09/16

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: *24*
(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:

per CJ use collection times on sample labels / 06/09/16

17. Additional remarks:

18. Cooler Information

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



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

July 05, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

OrderNo.: 1606427

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 6/8/2016 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 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 7:00:00 AM

Lab ID: 1606427-001

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 7:00:00 AM

Lab ID: 1606427-001

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 3:44:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	95.0	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909
Surr: Dibromofluoromethane	95.9	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909
Surr: Toluene-d8	97.3	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 8:50:00 AM

Lab ID: 1606427-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 2:34:45 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:34:45 PM	25749
Surr: DNOP	87.9	0	70-141		%Rec	1	6/9/2016 2:34:45 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.44	0.025	0.050		mg/L	1	6/13/2016 8:52:37 PM	A34874
Surr: BFB	163	0	66.4-120	S	%Rec	1	6/13/2016 8:52:37 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	1.7	0.023	0.10		mg/L	1	6/9/2016 11:23:53 PM	R34830
Chloride	340	0.55	10		mg/L	20	6/9/2016 11:36:18 PM	R34830
Bromide	0.43	0.032	0.10		mg/L	1	6/21/2016 12:20:59 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 11:23:53 PM	R34830
Sulfate	19	0.064	0.50		mg/L	1	6/9/2016 11:23:53 PM	R34830
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/10/2016 2:42:29 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.68	0.0013	0.0020		mg/L	1	6/10/2016 4:42:47 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:42:47 PM	B34847
Calcium	89	0.26	1.0		mg/L	1	6/10/2016 4:42:47 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:42:47 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:42:47 PM	B34847
Iron	1.8	0.045	0.10	*	mg/L	5	6/10/2016 4:44:28 PM	B34847
Magnesium	17	0.013	1.0		mg/L	1	6/10/2016 4:42:47 PM	B34847
Manganese	1.1	0.0016	0.010	*	mg/L	5	6/10/2016 4:44:28 PM	B34847
Potassium	0.70	0.18	1.0	J	mg/L	1	6/10/2016 4:42:47 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:42:47 PM	B34847
Sodium	430	0.48	5.0		mg/L	5	6/10/2016 4:44:28 PM	B34847
Zinc	0.055	0.0028	0.010		mg/L	1	6/10/2016 4:42:47 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	1.6	0.0053	0.010		mg/L	5	6/15/2016 1:50:43 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 1:49:00 PM	25841
Chromium	0.0034	0.0022	0.0060	J	mg/L	1	6/15/2016 1:49:00 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 1:49:00 PM	25841
Iron	5.6	0.072	0.20	*	mg/L	10	6/20/2016 4:05:22 PM	25841
Manganese	1.2	0.0076	0.010	*	mg/L	5	6/15/2016 1:50:43 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 1:49:00 PM	25841
Zinc	0.022	0.0039	0.010		mg/L	1	6/15/2016 1:49:00 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0086	0.00014	0.0010		mg/L	1	6/16/2016 2:34:00 PM	A34971

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 8:50:00 AM

Lab ID: 1606427-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	ND	0.00017	0.00050		mg/L	1	6/16/2016 2:34:00 PM	A34971
Selenium	0.0062	0.0011	0.0050		mg/L	5	6/23/2016 2:59:49 PM	C35122
Uranium	0.00089	0.000051	0.00050		mg/L	1	6/16/2016 2:34:00 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0082	0.00029	0.0010		mg/L	1	6/15/2016 6:35:11 PM	25841
Lead	0.0053	0.000047	0.00050		mg/L	1	6/15/2016 6:35:11 PM	25841
Selenium	0.0059	0.0025	0.020	J	mg/L	20	6/16/2016 8:56:54 PM	25841
Uranium	0.0015	0.0000049	0.00050		mg/L	1	6/15/2016 6:35:11 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000080	0.000053	0.00020	J	mg/L	1	6/13/2016 4:03:05 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	4.5	0.096	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Toluene	0.13	0.12	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
Ethylbenzene	5.1	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Methyl tert-butyl ether (MTBE)	140	0.21	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,4-Trimethylbenzene	0.15	0.11	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Naphthalene	0.60	0.093	2.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1-Methylnaphthalene	1.2	0.20	4.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Methylnaphthalene	0.44	0.16	4.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
Acetone	12	4.9	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 8:50:00 AM

Lab ID: 1606427-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1-Dichloroethane	0.34	0.11	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Isopropylbenzene	1.1	0.10	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
n-Butylbenzene	0.40	0.16	3.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
n-Propylbenzene	0.91	0.13	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
sec-Butylbenzene	0.54	0.12	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
tert-Butylbenzene	0.28	0.12	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 4:07:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	94.2	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 8:50:00 AM

Lab ID: 1606427-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909
Surr: Dibromofluoromethane	95.2	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909
Surr: Toluene-d8	98.1	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 9:10:00 AM

Lab ID: 1606427-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 2:56:53 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:56:53 PM	25749
Surr: DNOP	88.7	0	70-141		%Rec	1	6/9/2016 2:56:53 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.11	0.025	0.050		mg/L	1	6/13/2016 9:16:02 PM	A34874
Surr: BFB	123	0	66.4-120	S	%Rec	1	6/13/2016 9:16:02 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	1.0	0.023	0.10		mg/L	1	6/9/2016 11:48:42 PM	R34830
Chloride	190	0.55	10		mg/L	20	6/10/2016 12:01:07 AM	R34830
Bromide	1.0	0.032	0.10		mg/L	1	6/21/2016 12:33:23 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 11:48:42 PM	R34830
Sulfate	25	0.064	0.50		mg/L	1	6/9/2016 11:48:42 PM	R34830
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/10/2016 2:54:53 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.79	0.0013	0.0020		mg/L	1	6/10/2016 4:54:05 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:54:05 PM	B34847
Calcium	87	0.26	1.0		mg/L	1	6/10/2016 4:54:05 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:54:05 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:54:05 PM	B34847
Iron	0.10	0.0091	0.020		mg/L	1	6/10/2016 4:54:05 PM	B34847
Magnesium	14	0.013	1.0		mg/L	1	6/10/2016 4:54:05 PM	B34847
Manganese	1.5	0.0016	0.010	*	mg/L	5	6/10/2016 4:55:58 PM	B34847
Potassium	0.57	0.18	1.0	J	mg/L	1	6/10/2016 4:54:05 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:07:42 PM	A34876
Sodium	280	0.48	5.0		mg/L	5	6/10/2016 4:55:58 PM	B34847
Zinc	0.0052	0.0028	0.010	J	mg/L	1	6/10/2016 4:54:05 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.77	0.0011	0.0020		mg/L	1	6/15/2016 1:52:43 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 1:52:43 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 1:52:43 PM	25841
Copper	0.0092	0.0051	0.0060		mg/L	1	6/15/2016 1:52:43 PM	25841
Iron	0.53	0.0072	0.020	*	mg/L	1	6/15/2016 1:52:43 PM	25841
Manganese	2.0	0.0076	0.010	*	mg/L	5	6/15/2016 1:54:34 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 1:52:43 PM	25841
Zinc	0.011	0.0039	0.010		mg/L	1	6/15/2016 1:52:43 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0038	0.00014	0.0010		mg/L	1	6/16/2016 2:40:06 PM	A34971

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 9:10:00 AM

Lab ID: 1606427-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	ND	0.00017	0.00050		mg/L	1	6/16/2016 2:40:06 PM	A34971
Selenium	0.0058	0.0021	0.010	J	mg/L	10	6/23/2016 3:18:20 PM	C35122
Uranium	0.0095	0.000051	0.00050		mg/L	1	6/16/2016 2:40:06 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0047	0.00029	0.0010		mg/L	1	6/15/2016 6:38:11 PM	25841
Lead	0.00048	0.000047	0.00050	J	mg/L	1	6/15/2016 6:38:11 PM	25841
Selenium	0.0045	0.0012	0.010	J	mg/L	10	6/16/2016 9:05:59 PM	25841
Uranium	0.0099	0.0000049	0.00050		mg/L	1	6/15/2016 6:38:11 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000064	0.000053	0.00020	J	mg/L	1	6/13/2016 4:09:20 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	6.0	0.096	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Ethylbenzene	1.5	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Methyl tert-butyl ether (MTBE)	37	0.21	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,4-Trimethylbenzene	0.12	0.11	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Naphthalene	1.1	0.093	2.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
1-Methylnaphthalene	0.63	0.20	4.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Methylnaphthalene	0.46	0.16	4.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
cis-1,2-DCE	0.16	0.12	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 9:10:00 AM

Lab ID: 1606427-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Isopropylbenzene	0.17	0.10	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
tert-Butylbenzene	0.23	0.12	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 5:18:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	97.0	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 9:10:00 AM

Lab ID: 1606427-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909
Surr: Dibromofluoromethane	94.5	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909
Surr: Toluene-d8	97.5	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 9:25:00 AM

Lab ID: 1606427-004

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 3:41:12 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 3:41:12 PM	25749
Surr: DNOP	89.2	0	70-141		%Rec	1	6/9/2016 3:41:12 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 9:39:25 PM	A34874
Surr: BFB	108	0	66.4-120		%Rec	1	6/13/2016 9:39:25 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.56	0.023	0.10		mg/L	1	6/10/2016 12:13:32 AM	R34830
Chloride	870	1.4	25		mg/L	50	6/21/2016 12:58:13 AM	A35046
Bromide	4.1	0.032	0.10		mg/L	1	6/21/2016 12:45:48 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/10/2016 12:13:32 AM	R34830
Sulfate	320	1.3	10		mg/L	20	6/10/2016 12:25:56 AM	R34830
Nitrate+Nitrite as N	14	0.42	1.0	*	mg/L	5	6/10/2016 3:07:18 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.065	0.0013	0.0020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Calcium	32	0.26	1.0		mg/L	1	6/10/2016 4:58:00 PM	B34847
Chromium	0.0038	0.0018	0.0060	J	mg/L	1	6/10/2016 4:58:00 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:58:00 PM	B34847
Iron	0.23	0.0091	0.020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Magnesium	4.7	0.013	1.0		mg/L	1	6/10/2016 4:58:00 PM	B34847
Manganese	0.033	0.00032	0.0020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Potassium	3.2	0.18	1.0		mg/L	1	6/10/2016 4:58:00 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:09:39 PM	A34876
Sodium	780	0.96	10		mg/L	10	6/13/2016 4:11:34 PM	A34876
Zinc	0.023	0.0028	0.010		mg/L	1	6/10/2016 4:58:00 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.27	0.0011	0.0020		mg/L	1	6/15/2016 2:02:36 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:02:36 PM	25841
Chromium	0.019	0.0022	0.0060		mg/L	1	6/15/2016 2:02:36 PM	25841
Copper	0.011	0.0051	0.0060		mg/L	1	6/15/2016 2:02:36 PM	25841
Iron	6.8	0.072	0.20	*	mg/L	10	6/20/2016 4:07:19 PM	25841
Manganese	0.33	0.0015	0.0020	*	mg/L	1	6/15/2016 2:02:36 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:02:36 PM	25841
Zinc	0.20	0.0039	0.010		mg/L	1	6/15/2016 2:02:36 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0072	0.0014	0.010	J	mg/L	10	6/23/2016 3:21:23 PM	C35122

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 9:25:00 AM

Lab ID: 1606427-004

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.0016	0.00017	0.00050		mg/L	1	6/16/2016 2:43:10 PM	A34971
Selenium	0.022	0.0021	0.010		mg/L	10	6/23/2016 3:21:23 PM	C35122
Uranium	0.041	0.00051	0.0050	*	mg/L	10	6/23/2016 3:21:23 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	ND	0.015	0.050		mg/L	50	6/16/2016 9:12:00 PM	25841
Lead	0.011	0.000047	0.00050		mg/L	1	6/15/2016 6:41:11 PM	25841
Selenium	0.017	0.0062	0.050	J	mg/L	50	6/16/2016 9:12:00 PM	25841
Uranium	0.039	0.000025	0.0025	*	mg/L	5	6/16/2016 9:08:59 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	6/13/2016 4:11:22 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Methyl tert-butyl ether (MTBE)	0.44	0.21	1.0	J	µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 9:25:00 AM

Lab ID: 1606427-004

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 5:41:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 9:25:00 AM

Lab ID: 1606427-004

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	99.5	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909
Surr: Dibromofluoromethane	96.4	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909
Surr: Toluene-d8	98.4	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 10:12:00 AM

Lab ID: 1606427-005

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:03:13 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:03:13 PM	25749
Surr: DNOP	88.4	0	70-141		%Rec	1	6/9/2016 4:03:13 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 10:02:49 PM	A34874
Surr: BFB	107	0	66.4-120		%Rec	1	6/13/2016 10:02:49 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.44	0.023	0.10		mg/L	1	6/10/2016 12:38:21 AM	R34830
Chloride	130	0.55	10		mg/L	20	6/10/2016 12:50:46 AM	R34830
Bromide	1.3	0.032	0.10		mg/L	1	6/21/2016 1:10:38 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/10/2016 12:38:21 AM	R34830
Sulfate	140	1.3	10		mg/L	20	6/10/2016 12:50:46 AM	R34830
Nitrate+Nitrite as N	21	0.42	1.0	*	mg/L	5	6/10/2016 3:19:43 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.14	0.0013	0.0020		mg/L	1	6/10/2016 5:01:54 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:01:54 PM	B34847
Calcium	120	1.3	5.0		mg/L	5	6/10/2016 5:03:49 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 5:01:54 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:01:54 PM	B34847
Iron	ND	0.0091	0.020		mg/L	1	6/10/2016 5:01:54 PM	B34847
Magnesium	21	0.013	1.0		mg/L	1	6/10/2016 5:01:54 PM	B34847
Manganese	0.11	0.00032	0.0020	*	mg/L	1	6/10/2016 5:01:54 PM	B34847
Potassium	0.53	0.18	1.0	J	mg/L	1	6/10/2016 5:01:54 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:13:30 PM	A34876
Sodium	380	0.48	5.0		mg/L	5	6/10/2016 5:03:49 PM	B34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 5:01:54 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.16	0.0011	0.0020		mg/L	1	6/15/2016 2:06:01 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:06:01 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 2:06:01 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 2:06:01 PM	25841
Iron	0.82	0.0072	0.020	*	mg/L	1	6/15/2016 2:06:01 PM	25841
Manganese	0.26	0.0015	0.0020	*	mg/L	1	6/15/2016 2:06:01 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:06:01 PM	25841
Zinc	0.0048	0.0039	0.010	J	mg/L	1	6/15/2016 2:06:01 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0031	0.0014	0.010	J	mg/L	10	6/23/2016 3:24:27 PM	C35122

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 10:12:00 AM

Lab ID: 1606427-005

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	ND	0.00017	0.00050		mg/L	1	6/16/2016 2:58:29 PM	A34971
Selenium	0.0079	0.0021	0.010	J	mg/L	10	6/23/2016 3:24:27 PM	C35122
Uranium	0.015	0.000051	0.00050		mg/L	1	6/16/2016 2:58:29 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	ND	0.0029	0.010		mg/L	10	6/16/2016 9:15:00 PM	25841
Lead	0.00098	0.000047	0.00050		mg/L	1	6/15/2016 6:44:12 PM	25841
Selenium	0.0078	0.0012	0.010	J	mg/L	10	6/16/2016 9:15:00 PM	25841
Uranium	0.015	0.0000049	0.00050		mg/L	1	6/15/2016 6:44:12 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000065	0.000053	0.00020	J	mg/L	1	6/13/2016 4:13:24 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Methyl tert-butyl ether (MTBE)	2.0	0.21	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 10:12:00 AM

Lab ID: 1606427-005

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 6:05:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	97.4	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 10:12:00 AM

Lab ID: 1606427-005

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909
Surr: Dibromofluoromethane	96.7	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909
Surr: Toluene-d8	97.4	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909

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

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	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 11:00:00 AM

Lab ID: 1606427-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	5.2	0.69	1.0		mg/L	1	6/9/2016 4:25:36 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:25:36 PM	25749
Surr: DNOP	90.0	0	70-141		%Rec	1	6/9/2016 4:25:36 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	1.2	0.025	0.050		mg/L	1	6/13/2016 10:26:15 PM	A34874
Surr: BFB	268	0	66.4-120	S	%Rec	1	6/13/2016 10:26:15 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	1.6	0.11	0.50		mg/L	5	6/10/2016 1:03:11 AM	R34830
Chloride	1800	5.5	100		mg/L	200	6/21/2016 1:35:27 AM	A35046
Bromide	2.3	0.032	0.10		mg/L	1	6/21/2016 1:23:02 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	6/10/2016 1:03:11 AM	R34830
Sulfate	19	1.3	10		mg/L	20	6/10/2016 1:15:35 AM	R34830
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/10/2016 3:32:08 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.80	0.0013	0.0020		mg/L	1	6/10/2016 5:05:48 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:05:48 PM	B34847
Calcium	180	1.3	5.0		mg/L	5	6/10/2016 5:07:34 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 5:05:48 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:05:48 PM	B34847
Iron	7.2	0.18	0.40	*	mg/L	20	6/13/2016 4:17:13 PM	A34876
Magnesium	35	0.013	1.0		mg/L	1	6/10/2016 5:05:48 PM	B34847
Manganese	2.0	0.0016	0.010	*	mg/L	5	6/10/2016 5:07:34 PM	B34847
Potassium	4.5	0.18	1.0		mg/L	1	6/10/2016 5:05:48 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:15:27 PM	A34876
Sodium	1200	1.9	20		mg/L	20	6/13/2016 4:17:13 PM	A34876
Zinc	0.0047	0.0028	0.010	J	mg/L	1	6/10/2016 5:05:48 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.77	0.0011	0.0020		mg/L	1	6/15/2016 2:09:47 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:09:47 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 2:09:47 PM	25841
Copper	0.011	0.0051	0.0060		mg/L	1	6/15/2016 2:09:47 PM	25841
Iron	9.2	0.14	0.40	*	mg/L	20	6/20/2016 4:09:16 PM	25841
Manganese	1.9	0.0076	0.010	*	mg/L	5	6/15/2016 2:11:34 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:09:47 PM	25841
Zinc	0.015	0.0039	0.010		mg/L	1	6/15/2016 2:09:47 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.014	0.0014	0.010	*	mg/L	10	6/23/2016 3:27:30 PM	C35122

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 11:00:00 AM

Lab ID: 1606427-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS								Analyst: JLF
Lead	ND	0.0017	0.0050		mg/L	10	6/23/2016 3:27:30 PM	C35122
Selenium	0.024	0.0021	0.010		mg/L	10	6/23/2016 3:27:30 PM	C35122
Uranium	0.013	0.00051	0.0050		mg/L	10	6/23/2016 3:27:30 PM	C35122
200.8 ICPMS METALS:TOTAL								Analyst: JLF
Arsenic	0.017	0.0015	0.0050	*	mg/L	5	6/16/2016 9:21:01 PM	25841
Lead	0.0055	0.00024	0.0025		mg/L	5	6/16/2016 9:21:01 PM	25841
Selenium	0.024	0.0062	0.050	J	mg/L	50	6/16/2016 9:24:02 PM	25841
Uranium	0.014	0.000025	0.0025		mg/L	5	6/16/2016 9:21:01 PM	25841
EPA METHOD 245.1: MERCURY								Analyst: pmf
Mercury	0.000072	0.000053	0.00020	J	mg/L	1	6/13/2016 4:15:28 PM	25806
EPA METHOD 8270C: SEMIVOLATILES								Analyst: JDC
Acenaphthene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Acenaphthylene	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Aniline	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Anthracene	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Azobenzene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benz(a)anthracene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(a)pyrene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzoic acid	ND	13	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzyl alcohol	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-ethylhexyl)phthalate	19	13	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Butyl benzyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Carbazole	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Chloroaniline	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Chloronaphthalene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Chlorophenol	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Chrysene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Di-n-octyl phthalate	25	9.9	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 11:00:00 AM

Lab ID: 1606427-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Dibenzofuran	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
3,3'-Dichlorobenzidine	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Diethyl phthalate	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Dimethyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dimethylphenol	28	15	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Fluoranthene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Fluorene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachlorobutadiene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachloroethane	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Isophorone	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1-Methylnaphthalene	21	15	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Methylnaphthalene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Methylphenol	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
3+4-Methylphenol	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Naphthalene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Nitroaniline	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
3-Nitroaniline	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Nitroaniline	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Nitrobenzene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Nitrophenol	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Nitrophenol	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Pentachlorophenol	ND	12	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Phenanthrene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Phenol	ND	9.9	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 11:00:00 AM

Lab ID: 1606427-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Pyrene	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Pyridine	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Surr: 2-Fluorophenol	22.1	0	15-123	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: Phenol-d5	24.7	0	4.13-124	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: 2,4,6-Tribromophenol	36.4	0	18.4-134	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: Nitrobenzene-d5	65.2	0	28.8-134	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: 2-Fluorobiphenyl	51.5	0	35.9-125	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: 4-Terphenyl-d14	77.3	0	15-146	D	%Rec	1	6/21/2016 5:05:47 PM	25832
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	150	0.48	5.0		µg/L	5	6/14/2016 6:28:00 PM	R34909
Toluene	1.4	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Ethylbenzene	18	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Methyl tert-butyl ether (MTBE)	240	1.1	5.0		µg/L	5	6/14/2016 6:28:00 PM	R34909
1,2,4-Trimethylbenzene	12	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,3,5-Trimethylbenzene	0.15	0.12	1.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Naphthalene	7.5	0.093	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1-Methylnaphthalene	74	0.20	4.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Methylnaphthalene	0.44	0.16	4.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
Acetone	25	4.9	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Butanone	3.7	0.74	10	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

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Lab ID: 1606427-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1-Dichloroethane	1.3	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Isopropylbenzene	2.6	0.10	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
4-Isopropyltoluene	0.84	0.14	1.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
n-Butylbenzene	0.78	0.16	3.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
n-Propylbenzene	3.3	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
sec-Butylbenzene	0.63	0.12	1.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Xylenes, Total	8.3	0.37	1.5		µg/L	1	6/14/2016 6:52:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.2	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 11:00:00 AM

Lab ID: 1606427-006

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909
Surr: Dibromofluoromethane	92.4	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909
Surr: Toluene-d8	98.5	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 1:43:00 PM

Lab ID: 1606427-007

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	7.3	0.69	1.0		mg/L	1	6/9/2016 4:47:42 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:47:42 PM	25749
Surr: DNOP	93.4	0	70-141		%Rec	1	6/9/2016 4:47:42 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	3.6	0.025	0.050		mg/L	1	6/13/2016 10:49:40 PM	A34874
Surr: BFB	255	0	66.4-120	S	%Rec	1	6/13/2016 10:49:40 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.43	0.0013	0.0020		mg/L	1	6/10/2016 5:09:12 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:09:12 PM	B34847
Chromium	1.3	0.0088	0.030	*	mg/L	5	6/10/2016 5:11:07 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:09:12 PM	B34847
Iron	0.20	0.0091	0.020		mg/L	1	6/10/2016 5:09:12 PM	B34847
Manganese	0.54	0.00032	0.0020	*	mg/L	1	6/10/2016 5:09:12 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:26:48 PM	A34876
Zinc	0.010	0.0028	0.010		mg/L	1	6/10/2016 5:09:12 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.41	0.0011	0.0020		mg/L	1	6/15/2016 2:13:25 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:13:25 PM	25841
Chromium	1.2	0.011	0.030	*	mg/L	5	6/15/2016 2:15:18 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 2:13:25 PM	25841
Iron	0.49	0.0072	0.020	*	mg/L	1	6/15/2016 2:13:25 PM	25841
Manganese	0.50	0.0015	0.0020	*	mg/L	1	6/15/2016 2:13:25 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:13:25 PM	25841
Zinc	0.016	0.0039	0.010		mg/L	1	6/15/2016 2:13:25 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0044	0.00069	0.0050	J	mg/L	5	6/23/2016 3:30:33 PM	C35122
Lead	ND	0.00084	0.0025		mg/L	5	6/23/2016 3:30:33 PM	C35122
Selenium	0.0044	0.0011	0.0050	J	mg/L	5	6/23/2016 3:30:33 PM	C35122
Uranium	ND	0.00026	0.0025		mg/L	5	6/23/2016 3:30:33 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0051	0.00029	0.0010		mg/L	1	6/15/2016 6:50:13 PM	25841
Lead	0.00043	0.000047	0.00050	J	mg/L	1	6/15/2016 6:50:13 PM	25841
Selenium	0.0030	0.0012	0.010	J	mg/L	10	6/16/2016 9:27:02 PM	25841
Uranium	0.00034	0.0000049	0.00050	J	mg/L	1	6/15/2016 6:50:13 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000095	0.000053	0.00020	J	mg/L	1	6/13/2016 4:17:32 PM	25806

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 1:43:00 PM

Lab ID: 1606427-007

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: BCN	
Benzene	410	0.96	10		µg/L	10	6/15/2016 12:48:00 PM	A34917
Toluene	49	0.12	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
Ethylbenzene	50	0.11	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
Methyl tert-butyl ether (MTBE)	3.2	0.21	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
1,2,4-Trimethylbenzene	62	0.11	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
1,3,5-Trimethylbenzene	8.2	0.12	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
Xylenes, Total	140	0.37	1.5		µg/L	1	6/15/2016 1:12:00 PM	A34917
Surr: 1,2-Dichloroethane-d4	94.2	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917
Surr: Dibromofluoromethane	96.7	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917
Surr: Toluene-d8	98.7	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 2:00:00 PM

Lab ID: 1606427-008

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	16	0.69	1.0		mg/L	1	6/9/2016 5:54:14 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 5:54:14 PM	25750
Surr: DNOP	92.8	0	70-141		%Rec	1	6/9/2016 5:54:14 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	4.9	0.025	0.050		mg/L	1	6/13/2016 11:13:11 PM	A34874
Surr: BFB	554	0	66.4-120	S	%Rec	1	6/13/2016 11:13:11 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.15	0.0013	0.0020		mg/L	1	6/10/2016 5:20:42 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:20:42 PM	B34847
Chromium	0.44	0.0018	0.0060	*	mg/L	1	6/10/2016 5:20:42 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:20:42 PM	B34847
Iron	0.36	0.0091	0.020	*	mg/L	1	6/10/2016 5:20:42 PM	B34847
Manganese	3.8	0.0016	0.010	*	mg/L	5	6/10/2016 5:22:40 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:28:55 PM	A34876
Zinc	0.011	0.0028	0.010		mg/L	1	6/10/2016 5:20:42 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.16	0.0011	0.0020		mg/L	1	6/15/2016 2:17:14 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:17:14 PM	25841
Chromium	0.57	0.0022	0.0060	*	mg/L	1	6/15/2016 2:17:14 PM	25841
Copper	0.015	0.0051	0.0060		mg/L	1	6/15/2016 2:17:14 PM	25841
Iron	3.8	0.036	0.10	*	mg/L	5	6/15/2016 2:18:53 PM	25841
Manganese	3.6	0.0076	0.010	*	mg/L	5	6/15/2016 2:18:53 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:17:14 PM	25841
Zinc	0.088	0.0039	0.010		mg/L	1	6/15/2016 2:17:14 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0038	0.00069	0.0050	J	mg/L	5	6/23/2016 3:36:40 PM	C35122
Lead	ND	0.00084	0.0025		mg/L	5	6/23/2016 3:36:40 PM	C35122
Selenium	0.0020	0.0011	0.0050	J	mg/L	5	6/23/2016 3:36:40 PM	C35122
Uranium	0.00049	0.00026	0.0025	J	mg/L	5	6/23/2016 3:36:40 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0053	0.00029	0.0010		mg/L	1	6/15/2016 6:53:13 PM	25841
Lead	0.0011	0.000047	0.00050		mg/L	1	6/15/2016 6:53:13 PM	25841
Selenium	0.0017	0.00062	0.0050	J	mg/L	5	6/16/2016 9:30:03 PM	25841
Uranium	0.00062	0.0000049	0.00050		mg/L	1	6/15/2016 6:53:13 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00016	0.000053	0.00020	J	mg/L	1	6/13/2016 4:19:36 PM	25806

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 2:00:00 PM

Lab ID: 1606427-008

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: BCN	
Benzene	360	0.48	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Toluene	32	0.59	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Ethylbenzene	250	0.56	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Methyl tert-butyl ether (MTBE)	13	1.1	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
1,2,4-Trimethylbenzene	130	0.55	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
1,3,5-Trimethylbenzene	250	0.58	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Xylenes, Total	97	1.8	7.5		µg/L	5	6/15/2016 12:01:00 PM	A34917
Surr: 1,2-Dichloroethane-d4	86.8	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917
Surr: Dibromofluoromethane	92.6	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917
Surr: Toluene-d8	97.9	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 3:00:00 PM

Lab ID: 1606427-009

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 7:00:17 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 7:00:17 PM	25750
Surr: DNOP	94.3	0	70-141		%Rec	1	6/9/2016 7:00:17 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 11:36:43 PM	A34874
Surr: BFB	108	0	66.4-120		%Rec	1	6/13/2016 11:36:43 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.058	0.023	0.10	J	mg/L	1	6/10/2016 1:52:49 AM	R34830
Chloride	2400	5.5	100		mg/L	200	6/21/2016 2:00:17 AM	A35046
Bromide	4.1	0.32	1.0		mg/L	10	6/22/2016 1:16:32 AM	A35075
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/10/2016 1:52:49 AM	R34830
Sulfate	150	1.3	10		mg/L	20	6/10/2016 2:05:14 AM	R34830
Nitrate+Nitrite as N	20	0.42	1.0	*	mg/L	5	6/10/2016 4:21:46 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.17	0.0013	0.0020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Calcium	120	1.3	5.0		mg/L	5	6/10/2016 5:26:30 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 5:24:33 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:24:33 PM	B34847
Iron	0.067	0.0091	0.020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Magnesium	17	0.013	1.0		mg/L	1	6/10/2016 5:24:33 PM	B34847
Manganese	0.0024	0.00032	0.0020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Potassium	7.0	0.18	1.0		mg/L	1	6/10/2016 5:24:33 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:31:05 PM	A34876
Sodium	1500	1.9	20		mg/L	20	6/13/2016 4:33:00 PM	A34876
Zinc	0.0070	0.0028	0.010	J	mg/L	1	6/10/2016 5:24:33 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.20	0.0011	0.0020		mg/L	1	6/15/2016 2:27:03 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:27:03 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 2:27:03 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 2:27:03 PM	25841
Iron	3.0	0.036	0.10	*	mg/L	5	6/15/2016 2:28:48 PM	25841
Manganese	0.056	0.0015	0.0020	*	mg/L	1	6/15/2016 2:27:03 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:27:03 PM	25841
Zinc	0.053	0.0039	0.010		mg/L	1	6/15/2016 2:27:03 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0082	0.0014	0.010	J	mg/L	10	6/23/2016 3:55:05 PM	C35122

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 3:00:00 PM

Lab ID: 1606427-009

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	ND	0.00084	0.0025		mg/L	5	6/23/2016 3:39:44 PM	C35122
Selenium	0.025	0.0021	0.010		mg/L	10	6/23/2016 3:55:05 PM	C35122
Uranium	0.026	0.00026	0.0025		mg/L	5	6/23/2016 3:39:44 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	ND	0.015	0.050		mg/L	50	6/16/2016 9:42:09 PM	25841
Lead	0.0031	0.00024	0.0025		mg/L	5	6/16/2016 9:39:08 PM	25841
Selenium	0.021	0.0062	0.050	J	mg/L	50	6/16/2016 9:42:09 PM	25841
Uranium	0.026	0.000025	0.0025		mg/L	5	6/16/2016 9:39:08 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000075	0.000053	0.00020	J	mg/L	1	6/13/2016 4:21:40 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Methyl tert-butyl ether (MTBE)	0.60	0.21	1.0	J	µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1-Methylnaphthalene	0.45	0.20	4.0	J	µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 3:00:00 PM

Lab ID: 1606427-009

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 7:39:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	95.7	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-NW

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 3:00:00 PM

Lab ID: 1606427-009

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909
Surr: Dibromofluoromethane	95.5	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909
Surr: Toluene-d8	98.0	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 4:05:00 PM

Lab ID: 1606427-010

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	6.3	0.69	1.0		mg/L	1	6/9/2016 7:22:25 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 7:22:25 PM	25750
Surr: DNOP	95.8	0	70-141		%Rec	1	6/9/2016 7:22:25 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	4.9	0.25	0.50		mg/L	10	6/14/2016 12:00:14 AM	A34874
Surr: BFB	114	0	66.4-120		%Rec	10	6/14/2016 12:00:14 AM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	540	0.96	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Toluene	3.8	1.2	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
Ethylbenzene	150	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Methyl tert-butyl ether (MTBE)	4.2	2.1	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,4-Trimethylbenzene	46	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,3,5-Trimethylbenzene	17	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Naphthalene	130	0.93	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
1-Methylnaphthalene	130	2.0	40		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Methylnaphthalene	150	1.6	40		µg/L	10	6/14/2016 8:02:00 PM	R34909
Acetone	ND	49	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromobenzene	ND	0.98	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromodichloromethane	ND	1.4	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromoform	ND	1.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromomethane	ND	7.8	30		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Butanone	ND	7.4	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Carbon disulfide	ND	6.0	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chloroethane	ND	1.9	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chloroform	ND	0.89	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chloromethane	ND	2.1	30		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
cis-1,2-DCE	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Dibromochloromethane	ND	0.87	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Dibromomethane	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 4:05:00 PM

Lab ID: 1606427-010

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1-Dichloroethene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Hexanone	ND	8.4	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Isopropylbenzene	10	1.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
4-Isopropyltoluene	7.1	1.4	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Methylene Chloride	ND	1.9	30		µg/L	10	6/14/2016 8:02:00 PM	R34909
n-Butylbenzene	16	1.6	30	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
n-Propylbenzene	26	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
sec-Butylbenzene	7.9	1.2	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
Styrene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Vinyl chloride	ND	2.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Xylenes, Total	110	3.7	15		µg/L	10	6/14/2016 8:02:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	94.4	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909
Surr: 4-Bromofluorobenzene	99.1	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909
Surr: Dibromofluoromethane	93.4	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909
Surr: Toluene-d8	97.7	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date: 6/7/2016 4:30:00 PM

Lab ID: 1606427-011

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	35	0.69	1.0		mg/L	1	6/9/2016 7:44:12 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 7:44:12 PM	25750
Surr: DNOP	99.9	0	70-141		%Rec	1	6/9/2016 7:44:12 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	7.0	0.25	0.50		mg/L	10	6/14/2016 12:23:48 AM	A34874
Surr: BFB	128	0	66.4-120	S	%Rec	10	6/14/2016 12:23:48 AM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	300	0.96	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Toluene	85	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Ethylbenzene	250	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Methyl tert-butyl ether (MTBE)	25	2.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,4-Trimethylbenzene	74	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,3,5-Trimethylbenzene	120	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Naphthalene	540	0.93	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
1-Methylnaphthalene	310	2.0	40		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Methylnaphthalene	380	1.6	40		µg/L	10	6/14/2016 8:26:00 PM	R34909
Acetone	ND	49	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromobenzene	ND	0.98	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromodichloromethane	ND	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromoform	ND	1.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromomethane	ND	7.8	30		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Butanone	ND	7.4	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Carbon disulfide	ND	6.0	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chloroethane	ND	1.9	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chloroform	ND	0.89	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chloromethane	ND	2.1	30		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
cis-1,2-DCE	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Dibromochloromethane	ND	0.87	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Dibromomethane	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909

Refer to the QC Summary report and 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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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2016 2ND QTR NAP/LDU/OAP/STPIN

Collection Date: 6/7/2016 4:30:00 PM

Lab ID: 1606427-011

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1-Dichloroethene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Hexanone	ND	8.4	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Isopropylbenzene	25	1.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
4-Isopropyltoluene	12	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Methylene Chloride	ND	1.9	30		µg/L	10	6/14/2016 8:26:00 PM	R34909
n-Butylbenzene	29	1.6	30	J	µg/L	10	6/14/2016 8:26:00 PM	R34909
n-Propylbenzene	54	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
sec-Butylbenzene	10	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Styrene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Vinyl chloride	ND	2.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Xylenes, Total	690	3.7	15		µg/L	10	6/14/2016 8:26:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	90.4	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909
Surr: Dibromofluoromethane	94.0	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909
Surr: Toluene-d8	97.9	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606427

Date Reported: 7/5/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date:

Lab ID: 1606427-012

Matrix: TRIP BLANK

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Naphthalene	0.60	0.093	2.0	J	µg/L	1	6/14/2016 8:49:00 PM	R34909
1-Methylnaphthalene	0.86	0.20	4.0	J	µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Methylnaphthalene	0.86	0.16	4.0	J	µg/L	1	6/14/2016 8:49:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909

Refer to the QC Summary report and 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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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 2ND QTR NAP/LDU/OAP/STP1N

Collection Date:

Lab ID: 1606427-012

Matrix: TRIP BLANK

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 8:49:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	91.1	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909
Surr: Dibromofluoromethane	95.3	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909
Surr: Toluene-d8	102	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909

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

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

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

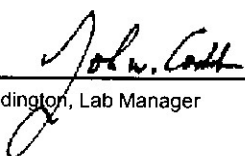
Client: HALL ENVIRONMENTAL ANALYSIS LAB **Batch #:** 160610036
Address: 4901 HAWKINS NE SUITE D **Project Name:** 1606427
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Analytical Results Report

Sample Number 160610036-001 **Sampling Date** 6/7/2016 **Date/Time Received** 6/10/2016 12:20 PM
Client Sample ID 1606427-006G / OAPIS-1 **Sampling Time** 11:00 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0930	mg/L	0.01	6/21/2016	MER	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160610036
Project Name: 1606427

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.516	mg/L	0.5	103.2	90-110	6/21/2016	6/21/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160617014-001	Cyanide	ND	0.490	mg/L	0.5	98.0	90-110	6/21/2016	6/21/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.481	mg/L	0.5	96.2	1.9	0-20	6/21/2016	6/21/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	6/21/2016	6/21/2016

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID MB-B	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: B34847		RunNo: 34847							
Prep Date:	Analysis Date: 6/10/2016		SeqNo: 1075725		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-B	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: B34847		RunNo: 34847							
Prep Date:	Analysis Date: 6/10/2016		SeqNo: 1075726		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.8	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Chromium	0.49	0.0060	0.5000	0	98.3	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.2	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Potassium	50	1.0	50.00	0	99.7	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	51	1.0	50.00	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID LLCS-B	SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: B34847		RunNo: 34847							
Prep Date:	Analysis Date: 6/10/2016		SeqNo: 1075727		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	82.5	50	150			J
Cadmium	0.0018	0.0020	0.002000	0	88.5	50	150			J
Calcium	0.55	1.0	0.5000	0	110	50	150			J
Chromium	0.0059	0.0060	0.006000	0	98.7	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID LLLCS-B	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: B34847			RunNo: 34847						
Prep Date:	Analysis Date: 6/10/2016			SeqNo: 1075727		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0055	0.0060	0.006000	0	91.0	50	150			J
Iron	0.019	0.020	0.02000	0	95.4	50	150			J
Magnesium	0.54	1.0	0.5000	0	108	50	150			J
Manganese	0.0020	0.0020	0.002000	0	103	50	150			
Potassium	0.52	1.0	0.5000	0	105	50	150			J
Silver	0.0053	0.0050	0.005000	0	105	50	150			
Sodium	0.52	1.0	0.5000	0	105	50	150			J
Zinc	0.0059	0.010	0.005000	0	118	50	150			J

Sample ID MB-A	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: A34876			RunNo: 34876						
Prep Date:	Analysis Date: 6/13/2016			SeqNo: 1077108		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID LCS-A	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: A34876			RunNo: 34876						
Prep Date:	Analysis Date: 6/13/2016			SeqNo: 1077109		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	49	1.0	50.00	0	98.9	85	115			

Sample ID LLLCS-A	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: A34876			RunNo: 34876						
Prep Date:	Analysis Date: 6/13/2016			SeqNo: 1077110		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.018	0.020	0.02000	0	92.0	50	150			J
Silver	0.0055	0.0050	0.005000	0	110	50	150			
Sodium	0.50	1.0	0.5000	0	101	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID MB-25841	SampType: MBLK		TestCode: EPA Method 200.7: Total Metals							
Client ID: PBW	Batch ID: 25841		RunNo: 34920							
Prep Date: 6/14/2016	Analysis Date: 6/15/2016		SeqNo: 1078647		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-25841	SampType: LCS		TestCode: EPA Method 200.7: Total Metals							
Client ID: LCSW	Batch ID: 25841		RunNo: 34920							
Prep Date: 6/14/2016	Analysis Date: 6/15/2016		SeqNo: 1078651		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.47	0.020	0.5000	0	94.0	85	115			
Manganese	0.49	0.0020	0.5000	0	97.1	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.5	85	115			

Sample ID LLCS-25841	SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals							
Client ID: BatchQC	Batch ID: 25841		RunNo: 34920							
Prep Date: 6/14/2016	Analysis Date: 6/15/2016		SeqNo: 1078652		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0026	0.0020	0.002000	0	128	50	150			
Cadmium	0.0020	0.0020	0.002000	0	100	50	150			
Chromium	0.0059	0.0060	0.006000	0	98.2	50	150			J
Copper	0.0068	0.0060	0.006000	0	114	50	150			
Iron	0.021	0.020	0.02000	0	105	50	150			
Manganese	0.0020	0.0020	0.002000	0	98.5	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.2	50	150			J
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: A34971			RunNo: 34971						
Prep Date:	Analysis Date: 6/16/2016			SeqNo: 1080463		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	105	85	115			
Lead	0.012	0.00050	0.01250	0	98.9	85	115			
Uranium	0.012	0.00050	0.01250	0	97.4	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: A34971			RunNo: 34971						
Prep Date:	Analysis Date: 6/16/2016			SeqNo: 1080464		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	112	50	150			
Lead	0.00053	0.00050	0.0005000	0	107	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: A34971			RunNo: 34971						
Prep Date:	Analysis Date: 6/16/2016			SeqNo: 1080465		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID 1606427-002DMSLL	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: NAPIS-2	Batch ID: A34971			RunNo: 34971						
Prep Date:	Analysis Date: 6/16/2016			SeqNo: 1080951		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008649	102	70	130			
Lead	0.013	0.00050	0.01250	0	104	70	130			
Uranium	0.015	0.00050	0.01250	0.0008851	115	70	130			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: C35122			RunNo: 35122						
Prep Date:	Analysis Date: 6/23/2016			SeqNo: 1086625		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	95.0	85	115			
Lead	0.012	0.00050	0.01250	0	97.7	85	115			
Selenium	0.023	0.0010	0.02500	0	93.9	85	115			
Uranium	0.012	0.00050	0.01250	0	97.1	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID LLLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: C35122			RunNo: 35122						
Prep Date:	Analysis Date: 6/23/2016			SeqNo: 1086627		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.3	50	150			J
Lead	0.00053	0.00050	0.0005000	0	105	50	150			
Selenium	0.00098	0.0010	0.001000	0	98.0	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	101	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: C35122			RunNo: 35122						
Prep Date:	Analysis Date: 6/23/2016			SeqNo: 1086629		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID 1606427-002DMSLL	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: NAPIS-2	Batch ID: C35122			RunNo: 35122						
Prep Date:	Analysis Date: 6/23/2016			SeqNo: 1087022		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.12	0.0050	0.1250	0.006176	92.6	70	130			

Sample ID 1606427-009DMSDL	SampType: MSD			TestCode: EPA 200.8: Dissolved Metals						
Client ID: STP1-NW	Batch ID: C35122			RunNo: 35122						
Prep Date:	Analysis Date: 6/23/2016			SeqNo: 1087032		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.062	0.0025	0.06250	0	99.3	70	130	0.0871	20	
Uranium	0.094	0.0025	0.06250	0.02570	110	70	130	1.76	20	

Sample ID 1606427-009DMSLL	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: STP1-NW	Batch ID: C35122			RunNo: 35122						
Prep Date:	Analysis Date: 6/23/2016			SeqNo: 1087033		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.062	0.0025	0.06250	0	99.4	70	130			
Uranium	0.093	0.0025	0.06250	0.02570	107	70	130			

Qualifiers:

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

QC SUMMARY REPORT

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WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	MB-25841		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	25841		RunNo:	34939			
Prep Date:	6/14/2016		Analysis Date:	6/15/2016		SeqNo:	1080234	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-25841		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	25841		RunNo:	34939			
Prep Date:	6/14/2016		Analysis Date:	6/15/2016		SeqNo:	1080236	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.4	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	MSLLLCS-25841		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	25841		RunNo:	34939			
Prep Date:	6/14/2016		Analysis Date:	6/15/2016		SeqNo:	1080238	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00096	0.0010	0.001000	0	95.9	50	150			J
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00085	0.0010	0.001000	0	84.6	50	150			J
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	MB-25806		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 25806		RunNo: 34868					
Prep Date:	6/13/2016		Analysis Date: 6/13/2016		SeqNo: 1076845		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	0.000090	0.00020								J

Sample ID	LCS-25806			SampType:	LCS		TestCode:	EPA Method 245.1: Mercury			
Client ID:	LCSW			Batch ID:	25806		RunNo:	34868			
Prep Date:	6/13/2016			Analysis Date:	6/13/2016		SeqNo:	1076846		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0050	0.00020	0.005000	0	99.0	80	120				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R34830			RunNo: 34830						
Prep Date:	Analysis Date: 6/9/2016			SeqNo: 1075096		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R34830			RunNo: 34830						
Prep Date:	Analysis Date: 6/9/2016			SeqNo: 1075097		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	4.9	0.50	5.000	0	98.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: A35046			RunNo: 35046						
Prep Date:	Analysis Date: 6/20/2016			SeqNo: 1083722		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: A35046			RunNo: 35046						
Prep Date:	Analysis Date: 6/20/2016			SeqNo: 1083723		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.5	90	110			
Bromide	2.4	0.10	2.500	0	97.0	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: A35075			RunNo: 35075						
Prep Date:	Analysis Date: 6/21/2016			SeqNo: 1084691		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: A35075			RunNo: 35075					
Prep Date:			Analysis Date: 6/21/2016			SeqNo: 1084692		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Bromide	2.4	0.10	2.500	0	97.9	90	110				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	LCS-25749		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 25749		RunNo: 34795					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074145		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	111	71.3	139			
Surr: DNOP	0.53		0.5000		105	70	141			

Sample ID	MB-25749	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range						
Client ID:	PBW	Batch ID: 25749		RunNo: 34795						
Prep Date:	6/9/2016	Analysis Date: 6/9/2016		SeqNo: 1074146		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	0.83		1.000		83.1	70	141			

Sample ID	1606427-008BMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	East LDU		Batch ID: 25750		RunNo: 34794					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074407		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	23	1.0	5.000	15.97	137	59.4	160			
Surr: DNOP	0.44		0.5000		88.7	70	141			

Sample ID	1606427-008BMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	East LDU		Batch ID:	25750		RunNo:	34794				
Prep Date:	6/9/2016		Analysis Date:	6/9/2016		SeqNo:	1074408		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	22	1.0	5.000	15.97	113	59.4	160	5.28	20		
Surr: DNOP	0.45		0.5000		89.1	70	141	0	0		

Sample ID	LCS-25750		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 25750		RunNo: 34794					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074417		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	87.6	71.3	139			
Surr: DNOP	0.41		0.5000		82.3	70	141			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	MB-25750		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range			
Client ID:	PBW		Batch ID:	25750		RunNo:	34794			
Prep Date:	6/9/2016		Analysis Date:	6/9/2016		SeqNo:	1074418	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	0.91		1.000		91.4	70	141			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: A34874			RunNo: 34874					
Prep Date:		Analysis Date: 6/13/2016			SeqNo: 1076985		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	22		20.00		109	66.4	120			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: A34874		RunNo: 34874					
Prep Date:			Analysis Date: 6/13/2016		SeqNo: 1076986		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.9	80	120			
Surr: BFB	23		20.00		115	66.4	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: A34917			RunNo: 34917							
Prep Date:	Analysis Date: 6/15/2016			SeqNo: 1079903		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	18	1.0	20.00	0	89.7	70	130				
Toluene	19	1.0	20.00	0	92.8	70	130				
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.5	70	130				
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130				
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130				
Surr: Toluene-d8	10		10.00		100	70	130				

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: A34917			RunNo: 34917							
Prep Date:	Analysis Date: 6/15/2016			SeqNo: 1079904		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	9.1		10.00		91.4	70	130				
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130				
Surr: Dibromofluoromethane	9.5		10.00		94.9	70	130				
Surr: Toluene-d8	9.8		10.00		98.3	70	130				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R34909			RunNo: 34909						
Prep Date:	Analysis Date: 6/14/2016			SeqNo: 1078285		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.7	70	130			
Toluene	20	1.0	20.00	0	99.5	70	130			
Chlorobenzene	20	1.0	20.00	0	99.1	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.6	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	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 RB	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R34909			RunNo: 34909						
Prep Date:	Analysis Date: 6/14/2016			SeqNo: 1078286		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	0.23	2.0								J
1-Methylnaphthalene	0.32	4.0								J
2-Methylnaphthalene	0.34	4.0								J
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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	RB	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R34909			RunNo: 34909					
Prep Date:		Analysis Date: 6/14/2016			SeqNo: 1078286	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	1.1	10								J
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	0.17	1.0								J
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.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R34909		RunNo: 34909							
Prep Date:	Analysis Date: 6/14/2016		SeqNo: 1078286		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	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Sample ID 1606427-002ams	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: NAPIS-2	Batch ID: R34909		RunNo: 34909							
Prep Date:	Analysis Date: 6/14/2016		SeqNo: 1078416		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	4.464	97.9	70	130			
Toluene	19	1.0	20.00	0	97.1	70	130			
Chlorobenzene	19	1.0	20.00	0	96.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	95.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID 1606427-002amsd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: NAPIS-2	Batch ID: R34909		RunNo: 34909							
Prep Date:	Analysis Date: 6/14/2016		SeqNo: 1078431		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	4.464	95.1	70	130	2.39	20	
Toluene	19	1.0	20.00	0	96.6	70	130	0.558	20	
Chlorobenzene	19	1.0	20.00	0	96.3	70	130	0.528	20	
1,1-Dichloroethene	19	1.0	20.00	0	96.8	70	130	1.13	20	
Trichloroethene (TCE)	19	1.0	20.00	0	93.0	70	130	2.22	20	
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130	0	0	
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	mb-25832		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	PBW		Batch ID:	25832		RunNo:	35052			
Prep Date:	6/14/2016		Analysis Date:	6/21/2016		SeqNo:	1083880	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	6.4	20								J
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	3.5	10								J
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	5.0	10								J
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	4.2	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	4.4	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	4.6	20								J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	mb-25832		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 25832		RunNo: 35052					
Prep Date:	6/14/2016		Analysis Date: 6/21/2016		SeqNo: 1083880		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	100		200.0		52.4	15	123			
Surr: Phenol-d5	95		200.0		47.6	4.13	124			
Surr: 2,4,6-Tribromophenol	160		200.0		81.2	18.4	134			
Surr: Nitrobenzene-d5	61		100.0		60.7	28.8	134			
Surr: 2-Fluorobiphenyl	56		100.0		56.3	35.9	125			
Surr: 4-Terphenyl-d14	110		100.0		108	15	146			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	Ics-25832		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 25832		RunNo: 35052					
Prep Date:	6/14/2016		Analysis Date: 6/21/2016		SeqNo: 1083881		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	67.5	35	113			
4-Chloro-3-methylphenol	150	10	200.0	0	76.6	40.7	114			
2-Chlorophenol	140	10	200.0	0	71.1	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.3	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.2	37	91			
N-Nitrosodi-n-propylamine	67	10	100.0	0	66.9	45.4	105			
4-Nitrophenol	110	10	200.0	0	57.2	33.4	104			
Pentachlorophenol	130	20	200.0	0	66.4	29.5	94.9			
Phenol	110	10	200.0	0	56.4	30.6	119			
Pyrene	74	10	100.0	0	73.7	26.2	120			
1,2,4-Trichlorobenzene	57	10	100.0	0	57.3	39.9	125			
Surr: 2-Fluorophenol	110		200.0		57.4	15	123			
Surr: Phenol-d5	110		200.0		54.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		72.8	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		68.4	28.8	134			
Surr: 2-Fluorobiphenyl	62		100.0		62.4	35.9	125			
Surr: 4-Terphenyl-d14	89		100.0		88.8	15	146			

Sample ID	mb-26049			SampType:	MBLK			TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW			Batch ID:	26049			RunNo:	35322					
Prep Date:	6/24/2016			Analysis Date:	6/29/2016			SeqNo:	1092678			Units:	%Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Surr: 2-Fluorophenol	56		200.0		28.1	15	123							
Surr: Phenol-d5	62		200.0		31.2	4.13	124							
Surr: 2,4,6-Tribromophenol	77		200.0		38.6	18.4	134							
Surr: Nitrobenzene-d5	32		100.0		32.3	28.8	134							
Surr: 2-Fluorobiphenyl	35		100.0		35.4	35.9	125			S				
Surr: 4-Terphenyl-d14	63		100.0		62.6	15	146							

Sample ID	Ics-26049			SampType:	LCS			TestCode:	EPA Method 8270C: Semivolatiles		
Client ID:	LCSW			Batch ID:	26049			RunNo:	35322		
Prep Date:	6/24/2016			Analysis Date:	6/29/2016			SeqNo:	1092679		
								Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 2-Fluorophenol	98		200.0		48.8	15	123				
Surr: Phenol-d5	110		200.0		53.0	4.13	124				
Surr: 2,4,6-Tribromophenol	130		200.0		62.5	18.4	134				
Surr: Nitrobenzene-d5	60		100.0		59.8	28.8	134				
Surr: 2-Fluorobiphenyl	64		100.0		64.5	35.9	125				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606427

05-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	lcs-26049		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 26049		RunNo: 35322					
Prep Date:	6/24/2016		Analysis Date: 6/29/2016		SeqNo: 1092679		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	66		100.0		66.0	15	146			

Sample ID	lcsd-26049		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 26049		RunNo: 35322					
Prep Date:	6/24/2016		Analysis Date: 6/29/2016		SeqNo: 1092680		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	110		200.0		53.8	15	123	0	0	
Surr: Phenol-d5	130		200.0		64.3	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		81.6	18.4	134	0	0	
Surr: Nitrobenzene-d5	68		100.0		67.9	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	76		100.0		76.0	35.9	125	0	0	
Surr: 4-Terphenyl-d14	90		100.0		89.7	15	146	0	0	

Qualifiers:

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



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

Sample Log-In Check List

Client Name: **Western Refining Gallup**

Work Order Number: **1606427**

RcptNo: 1

Received by/date:

Logged By: **Ashley Gallegos**

6/8/2016 2:18:00 PM

Completed By: **Ashley Gallegos**

6/8/2016 6:05:15 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? 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? 06/09/16 Yes ☒ No ☒
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐ PH. 06/09/16
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:

22 / 1 @ 1055
(2 or 1 unless noted)

Adjusted? Yes

Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

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



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

June 27, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2nd QTR

OrderNo.: 1606390

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/8/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-EP2

Project: 2016 2nd QTR

Collection Date: 6/8/2016 8:10:00 AM

Lab ID: 1606390-001

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	2.0	0.69	1.0		mg/L	1	6/9/2016 12:17:09 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 12:17:09 PM	25749
Surr: DNOP	102	0	70-141		%Rec	1	6/9/2016 12:17:09 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.13	0.25	D	mg/L	5	6/13/2016 2:38:35 PM	A34874
Surr: BFB	109	0	66.4-120	D	%Rec	5	6/13/2016 2:38:35 PM	A34874
SM5210B: BOD							Analyst: SMS	
Biochemical Oxygen Demand	160	2.0	2.0		mg/L	1	6/14/2016 2:26:00 PM	25755
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.48	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Toluene	ND	0.59	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Ethylbenzene	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Naphthalene	ND	0.46	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
1-Methylnaphthalene	ND	1.0	20		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/14/2016 2:57:00 PM	R34909
Acetone	870	25	50		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromobenzene	ND	0.49	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromoform	ND	0.51	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromomethane	ND	3.9	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Butanone	24	3.7	50	J	µg/L	5	6/14/2016 2:57:00 PM	R34909
Carbon disulfide	39	3.0	50	J	µg/L	5	6/14/2016 2:57:00 PM	R34909
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chloroethane	ND	0.96	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chloroform	ND	0.44	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chloromethane	ND	1.1	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-EP2

Project: 2016 2nd QTR

Collection Date: 6/8/2016 8:10:00 AM

Lab ID: 1606390-001

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Dibromomethane	ND	0.60	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Hexanone	ND	4.2	50		µg/L	5	6/14/2016 2:57:00 PM	R34909
Isopropylbenzene	ND	0.52	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/14/2016 2:57:00 PM	R34909
Methylene Chloride	ND	0.94	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
n-Butylbenzene	ND	0.80	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
n-Propylbenzene	ND	0.66	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Styrene	ND	0.55	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Vinyl chloride	ND	0.98	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Xylenes, Total	ND	1.8	7.5		µg/L	5	6/14/2016 2:57:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	93.5	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909
Surr: 4-Bromofluorobenzene	99.2	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909
Surr: Dibromofluoromethane	96.5	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1606390**

Date Reported: **6/27/2016**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP1-EP2

Project: 2016 2nd QTR

Collection Date: 6/8/2016 8:10:00 AM

Lab ID: 1606390-001

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: Toluene-d8	99.4	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS	
Total Dissolved Solids	4400	52.5	100	*D	mg/L	1	6/10/2016 5:56:00 PM	25764

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2016 2nd QTR

Collection Date: 6/8/2016 9:00:00 AM

Lab ID: 1606390-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	14	0.69	1.0		mg/L	1	6/9/2016 6:50:08 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 6:50:08 PM	25749
Surr: DNOP	101	0	70-141		%Rec	1	6/9/2016 6:50:08 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	140	1.3	2.5		mg/L	50	6/13/2016 3:49:00 PM	A34874
Surr: BFB	114	0	66.4-120		%Rec	50	6/13/2016 3:49:00 PM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	36000	48	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Toluene	2900	59	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Ethylbenzene	1100	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Methyl tert-butyl ether (MTBE)	1700	110	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,4-Trimethylbenzene	230	55	500	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
1,3,5-Trimethylbenzene	120	58	500	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	58	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Naphthalene	180	46	1000	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
1-Methylnaphthalene	170	100	2000	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Methylnaphthalene	ND	79	2000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Acetone	ND	2500	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromobenzene	ND	49	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromodichloromethane	ND	70	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromoform	ND	51	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromomethane	ND	390	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Butanone	ND	370	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Carbon disulfide	ND	300	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Carbon Tetrachloride	ND	54	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chlorobenzene	ND	57	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chloroethane	ND	96	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chloroform	ND	44	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chloromethane	ND	110	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Chlorotoluene	ND	200	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
4-Chlorotoluene	ND	64	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
cis-1,2-DCE	ND	62	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
cis-1,3-Dichloropropene	ND	53	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	120	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Dibromochloromethane	ND	43	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Dibromomethane	ND	60	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dichlorobenzene	ND	200	500		µg/L	500	6/14/2016 3:20:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2016 2nd QTR

Collection Date: 6/8/2016 9:00:00 AM

Lab ID: 1606390-002

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,3-Dichlorobenzene	ND	72	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,4-Dichlorobenzene	ND	71	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Dichlorodifluoromethane	ND	180	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1-Dichloroethane	ND	54	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1-Dichloroethene	ND	54	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dichloropropane	ND	55	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,3-Dichloropropane	ND	78	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2,2-Dichloropropane	ND	83	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1-Dichloropropene	ND	67	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Hexachlorobutadiene	ND	99	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Hexanone	ND	420	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Isopropylbenzene	ND	52	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
4-Isopropyltoluene	ND	70	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
4-Methyl-2-pentanone	ND	210	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Methylene Chloride	ND	94	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
n-Butylbenzene	ND	80	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
n-Propylbenzene	71	66	500	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
sec-Butylbenzene	ND	62	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Styrene	ND	55	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
tert-Butylbenzene	ND	58	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	64	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Tetrachloroethene (PCE)	ND	76	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
trans-1,2-DCE	ND	200	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
trans-1,3-Dichloropropene	ND	52	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,3-Trichlorobenzene	ND	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,4-Trichlorobenzene	ND	66	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,1-Trichloroethane	ND	46	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,2-Trichloroethane	ND	64	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Trichloroethene (TCE)	ND	88	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Trichlorofluoromethane	ND	100	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,3-Trichloropropane	ND	100	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Vinyl chloride	ND	98	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Xylenes, Total	3100	180	750		µg/L	500	6/14/2016 3:20:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.2	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909
Surr: Dibromofluoromethane	96.3	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909
Surr: Toluene-d8	99.2	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 2nd QTR

Collection Date: 6/8/2016

Lab ID: 1606390-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	0.10	0.096	1.0	J	µg/L	1	6/14/2016 2:10:00 PM	R34909
Toluene	0.18	0.12	1.0	J	µg/L	1	6/14/2016 2:10:00 PM	R34909
Ethylbenzene	0.12	0.11	1.0	J	µg/L	1	6/14/2016 2:10:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 2nd QTR

Collection Date: 6/8/2016

Lab ID: 1606390-003

Matrix: AQUEOUS

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 2:10:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	95.3	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909
Surr: Dibromofluoromethane	96.3	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909
Surr: Toluene-d8	97.8	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 2nd QTR

Collection Date:

Lab ID: 1606390-004

Matrix: TRIP BLANK

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 4:34:59 PM	A34874
Surr: BFB	109	0	66.4-120		%Rec	1	6/13/2016 4:34:59 PM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606390

Date Reported: 6/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 2nd QTR

Collection Date:

Lab ID: 1606390-004

Matrix: TRIP BLANK

Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 2:33:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.3	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909
Surr: 4-Bromofluorobenzene	99.6	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909
Surr: Dibromofluoromethane	97.0	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909
Surr: Toluene-d8	98.9	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909

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

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

1606390-001E STP1-EP2

Collected date/time: 06/08/16 08:10

SAMPLE RESULTS - 01

L840796

ONE LAB. NATIONWIDE.



Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	408		10.0	1	06/13/2016 09:04	WG879524

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L840796

DATE/TIME:

06/13/16 10:41



(MB) R3143089-1 06/13/16 08:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
COD	4.08	B J	3.00	10.0

L840636-01 Original Sample (OS) • Duplicate (DUP)

(OS) L840636-01 06/13/16 09:01 • (DUP) R3143089-4 06/13/16 09:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	1760	1750	50	1.00		20

L840796-01 Original Sample (OS) • Duplicate (DUP)

(OS) L840796-01 06/13/16 09:04 • (DUP) R3143089-7 06/13/16 09:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	408	408	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3143089-2 06/13/16 08:57 • (LCSD) R3143089-3 06/13/16 08:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	254	255	105	105	90.0-110			0.000	20

L840646-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840646-01 06/13/16 09:02 • (MS) R3143089-5 06/13/16 09:02 • (MSD) R3143089-6 06/13/16 09:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	ND	409	408	102	102	1	80.0-120			0.000	20

1
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GLOSSARY OF TERMS

ONE LAB. NATIONWIDE.



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.



QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606390

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID	1606390-001BMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	STP1-EP2		Batch ID: 25749		RunNo: 34795					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074139		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	8.1	1.0	5.000	2.006	122	59.4	160			
Surr: DNOP	0.53		0.5000		106	70	141			

Sample ID	1606390-001BMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	STP1-EP2		Batch ID: 25749		RunNo: 34795					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074140		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	7.9	1.0	5.000	2.006	117	59.4	160	2.78	20	
Surr: DNOP	0.54		0.5000		108	70	141	0	0	

Sample ID	LCS-25749		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 25749		RunNo: 34795					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074145		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	111	71.3	139			
Surr: DNOP	0.53		0.5000		105	70	141			

Sample ID	MB-25749		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 25749		RunNo: 34795					
Prep Date:	6/9/2016		Analysis Date: 6/9/2016		SeqNo: 1074146		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	0.83		1.000		83.1	70	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified